SCHOOL MANAGEMENT



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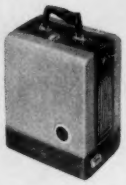
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Published monthly at New York, N. Y., by SCHOOL MANAGEMENT, INC.

A subsidiary of the Publishers of Parents' Magazine
52 Vanderbilt Avenue
New York 17, N. Y., U. S. A.

Address correspondence to N. Y. office

Chicago Advertising Office
360 N. Michigan Ave.

President & Publisher
GEORGE J. HECHT

Publisher also of Parents' Magazine

LUCILE D. KIRK, Executive Editor

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University of North Carolina

Subscription rate $2.00 a year
Single copy 20¢

Acceptance under Section 34.64, P. L. and R. authorized

EDUCATIONAL PRESS ASSOCIATION OF AMERICA

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Contents are listed in Education Index

MAY, 1951 VOL. 20, No. 10

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THE POPULARIZATION OF HIGHER EDUCATION

Credit the summer session and extension services for its enormous growth since 1900



Dr. Knight, Professor of Education, U. of North Carolina

By EDGAR W. KNIGHT
School and College Management's Educational Commentator

A STRIKING and heartening fact in American education during the first half of the present century was the wide popularization of higher education. This has been called a "phenomenon without parallel in the social history of the world," and it was produced largely by the summer session and the extension services of colleges and universities. Both of these educational services developed under difficulties and in the face of institutional indifference and often hostility.

In his annual reports President Butler of Columbia University frequently referred to and praised the work of Columbia's extension services. In his report for 1913-14 he said that that institution had projected the summer session to accomplish several purposes. Among these were:

To make use of the buildings during the unduly long summer holiday.

To make it possible for the professors "who could not afford to remain without remunerative occupation during so large a part of the year, to gain additional compensation by work within the University's proper scope," work which also might well extend the influence of the institution.

"To put a stop to the exceptionally bad practice of permitting and even encouraging students to remain idle, when it would be greatly to their advantage, mentally, morally, and physically to be engaged in systematic study and in preparation for their life work."

To demonstrate the unity of the institution and to make provision for that unity to manifest itself.

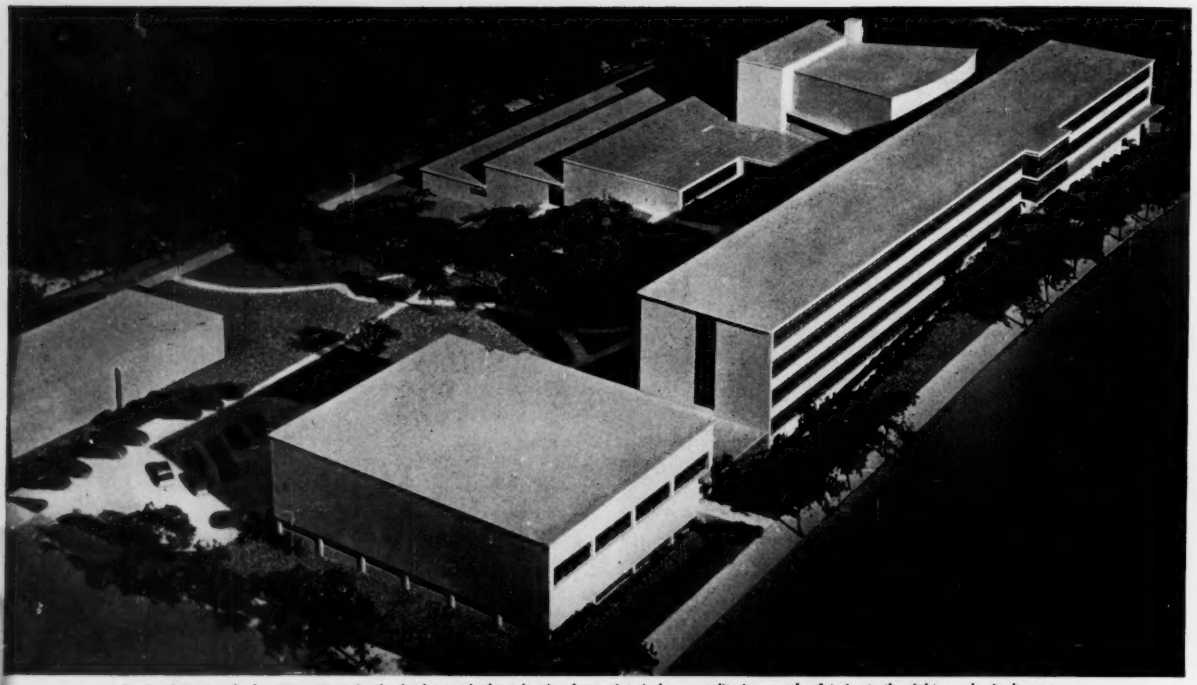
The rapid growth of the summer session and its place in American education were described on this page in June, 1948. The growth of educational services of colleges and universities through extension was also rapid during the first 50 years of the present century. It was developing further at mid-century. The purpose of this activity, which seems to have had its beginning at the University of Wisconsin in the 1890's, was to provide larger educational opportunities for more of the constituencies of the institution than those provided in the regular terms and in summer sessions. It was several years, however, before the legislature provided for its support.

When Charles R. Van Hise took office as president of the University of Wisconsin in 1903 extension became a cardinal point in the educational program which he proposed, and a revolutionary policy for carrying the University service to the state at large was adopted. Earlier the American Society for the Extension of University Teaching had been founded in Philadelphia for the purpose of extending higher education to all classes of the people. By 1900 it had provided for nearly 100 courses of lectures at 74 centers which were attended by nearly 25,000 people. Extension classes enrolled nearly 10,000 people. Other agencies outside educational institutions developed for the same purpose.

Before the middle of the twentieth century the number of men and women who were participating in university extension and adult education, "workers by day and students in their free time," ran into millions. Between 1906 and 1913, 28 universities had organized extension divisions. The National University Extension Association, which was organized in 1915 with 22 institutional members, had 52 members by 1941 with enrollments of 120,000 in extension classes, *(Turn to page 6)*

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In the foreground, the gymnasium; in the background, three levels of vocational shops, auditorium, and cafeteria; to the right, academic classrooms

PASSAIC PLANS UNUSUAL COMPREHENSIVE HIGH SCHOOL

PLANNED for Passaic, New Jersey, is a most unusual high school, one radically different from any existing high school in that state. This new school, designed by Kelly & Gruzen, architects-engineers, will be known as the Passaic Comprehensive High School. It represents a new understanding of the social and psychological problems and attitudes of the high-school pupil, as well as a progressive approach to high-school education.

The Passaic Board of Education, after painstaking research and study, came to the conclusion that one of the most serious educational problems facing their community was the distinction made between academic and vocational high school pupils. They found this distinction to be seriously detrimental to the social and educational adjustment of the vocational student. The board decided that the best way to combat this problem was to combine academic and vocational facilities. If the two groups of students were brought together, if they shared interrelated facilities, if the vocational student were given a greater opportunity to share academic facilities, the existing cleavage between academic and vocational pupils would be removed, and the resulting social distinctions would disappear. That was the thinking of the board members.

The new school will take advantage of a sloping site by building three levels of vocational shops down the hill. The four floors of academic classrooms will be built across the summit. The building will be in four sections:

1. Academic classrooms and laboratories, of which there will be 66.
2. Vocational shops, of which there will be 17, covering a wide variety of activities. These include graphic arts, electronics, textiles, blueprinting, home maintenance, and auto mechanics, to mention a few.
3. Cafeteria and auditorium.
4. Gymnasium and locker rooms.

Two interesting features of the classrooms are the windows and the ventilation system. One wall of every classroom will be of glass—clear glass on walls facing north, and glass brick on walls facing south, to prevent glare and to diffuse the light. There will be a strip of clear glass at eye level in the glass brick walls. Ventilation will be controlled by air ducts opening into the room on the wall opposite the window.

Other facilities of the classroom building include a commercial education department, a home economics section, audio-visual aids rooms, a little theater seating 200, faculty lounges and reading rooms, study conference rooms, and administrative offices.

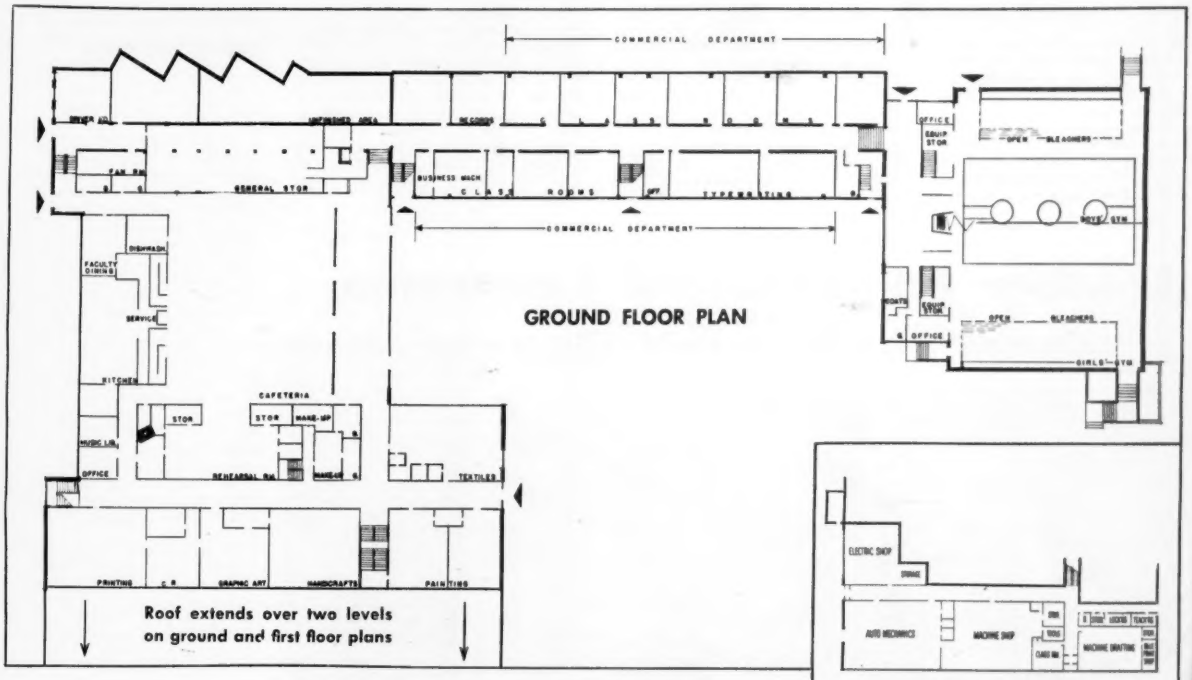
The library, also located in this building, is spacious, with many alcoves so that a number of different groups can work simultaneously but in isolation. Provision is also made for a library classroom.

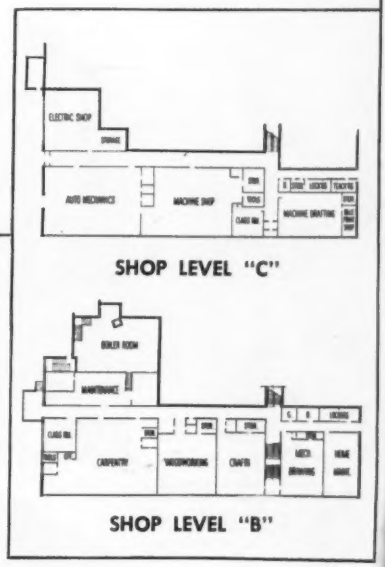
The cafeteria, with a capacity of 600, is located a half story below the ground floor of the academic building, and is convenient to both the academic and vocational areas. It will contain two serving sections for students, a separate dining room and serving section for the faculty, a dietitian's office, and a spacious, well-equipped kitchen.

On the same level as the cafeteria is the music department. Its facilities include a music library, listening booths, band rehearsal rooms, dressing rooms, and storage rooms. A staircase leads directly from these rooms to the stage of the auditorium above.

Located directly above the cafeteria is the auditorium, which has a seating capacity of 1,000, including balcony space. A stagecraft shop adjoins one wing and a storage room the other. Lights, and a spotlight gallery, will be housed in troughs in the ceiling. Outside the auditorium will be a tile-paved terrace. This will double for use as a roof for the top shop level, and as a terrace for recreational and class use.

The gymnasium, at the northwest end of the academic building, has a flexible plan. Equipped with a folding partition, it can be divided into two separate rooms or opened into one large room. When the partition is open, the room has a seating capacity of 2,500, and folding bleachers provide room for 1,200 more. Since the gymnasium has an acoustically





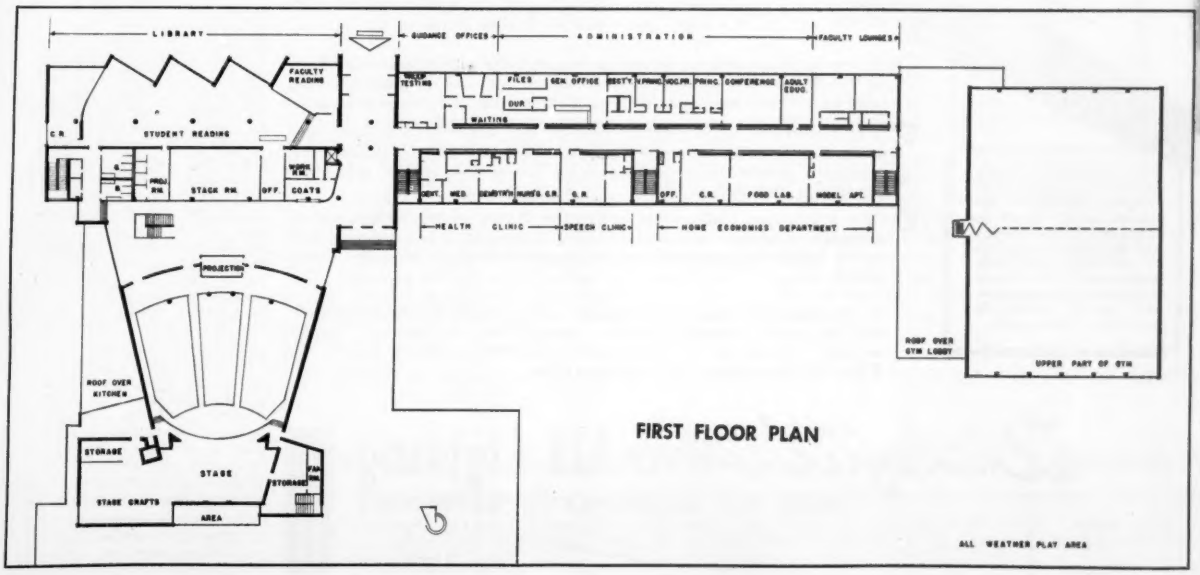
treated ceiling, it can be used for concerts as well as for civic functions, dances, and sports events. Other facilities of the gymnasium include a regulation basketball court and two practice courts.

Boys' and girls' locker rooms are located beneath the gym, with a game room for volley ball or table tennis between them. Outside the gymnasium, near an existing library, is an all-weather play area.

The school will be built for economy, as well as efficiency. It will be constructed of concrete. Prefabricated concrete walls will be poured right at the site, and then lifted into place once they have hardened. Some interior walls will be of concrete blocks, painted but not plastered. Prefabricated metal decks, which have been acoustically treated, will be used for shop and gymnasium roofs to keep noise low.

The school will be built to accommodate a maximum of 2,200 pupils. The five-acre site cost $67,500. Building costs, estimated at present prices, will total $3,472,430.

The combined efforts of the Passaic Board of Education, the superintendent of schools, Clark W. McDermith, and the architects-engineers will integrate progressive educational methods and the latest in efficient, economical, architectural planning. When it is ready for occupancy the Passaic Comprehensive High School will provide its students with a healthy, happy educational environment.



New UN Education Service Is Available

UNITED Nations Education Service, 1201 Sixteenth St. N. W., Washington 6, D. C. was recently organized to disseminate information about UN activities to schools, colleges, and other interested groups.

The services provided to subscribers will include:

1. Copies of UNIT (United Nations Information for Teachers), a bi-weekly newsletter on UN and other international activities.

2. Selection and distribution of materials and preparation of teaching units and studies suitable for use in classrooms by teachers and students.

3. Maintenance of a representative of the teaching profession at the UN in order to gather information and select materials for distribution to teachers.

Subscription rates will be based on school enrollment and organization membership.

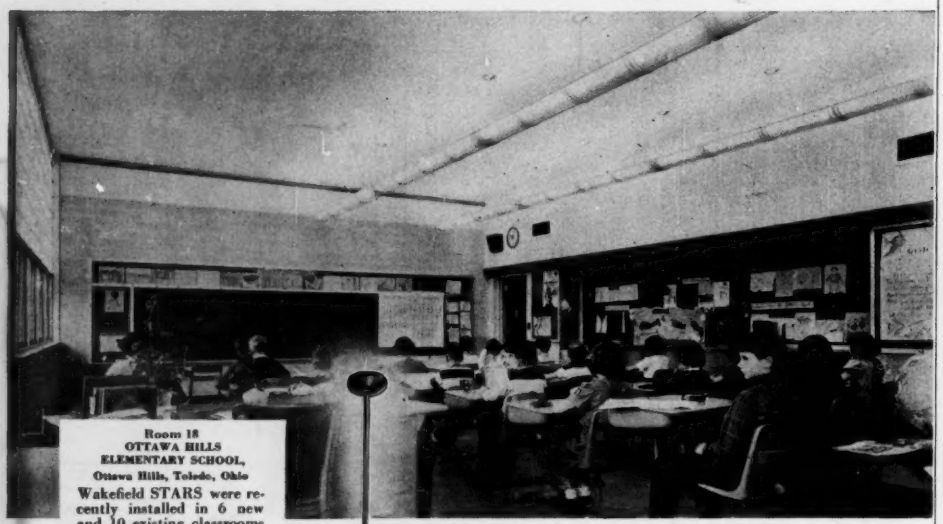
Those schools or school systems with over 25,000 students will pay a fee of $50 for all services plus 20 copies of each issue of UNIT. This is the highest rate.

The lowest rate will be $20 for all services plus 5 copies of each issue of UNIT. This is for schools with under 2,000 students.

For more facts use Inquiry Card, S&CM-2M

Another Co-ordinated Classroom

lighted with Wakefield *fluorescent* Stars



Room 18
OTTAWA HILLS
ELEMENTARY SCHOOL,
Ottawa Hills, Toledo, Ohio

Wakefield STARS were recently installed in 6 new and 10 existing classrooms in Ottawa Hills Elementary School. Room 18 shown here has a functional layout for daytime use only; note omission of row by windows.



THE STAR has a translucent Plaskon reflector which completely shields the fluorescent lamps. When the lamps are lit the reflector and the ceiling above it are of approximately equal brightness. This is a basic requirement of supplementary lighting systems for co-ordinated classrooms.

Here we see another classroom in which daylighting, supplementary lighting, furniture and paint have been co-ordinated to produce a visually comfortable environment. And here again we see a luminous indirect lighting fixture used—the Wakefield Star.

1 Only a luminous indirect fixture such as the Wakefield fluorescent Star (or the Wakefield incandescent Commodore) will provide smoothly distributed, well balanced light, free from glare and sharp brightness contrasts.

2 Only a luminous indirect fixture such as the Wakefield Star (or Commodore) will create three-dimensional seeing conditions by making the ceiling the primary light source, with the fixture itself and the side walls becoming a secondary source.

3 Only a luminous indirect fixture like the Wakefield Star, which has a minimum of opaque cross-section and a maximum of translucency, will permit fullest transmission of upward beams of daylight from directional glass block.

We have prepared a new 20-page booklet dealing simply but comprehensively with the subject of modern classroom lighting. For your copy of "Supplementary Lighting for the Co-ordinated Classroom", write to The F. W. Wakefield Brass Company, Vermilion, Ohio.

Wakefield Over-ALL Lighting

BASIC FOR CO-ORDINATED CLASSROOMS



The Popularization of Higher Education

(Continued from page 3)

about 50,000 in correspondence courses on the collegiate level, and audiences of more than 220,000 for lectures under the supervision of universities.

And these immense figures did not represent all that was being done in university extension. Figures on the work of urban institutions and of agricultural extension services of land-grant colleges were not included. The work of the agricultural colleges was described as "the most extensive enterprise of adult education in the world." By mid-century 70 institutions had membership in the national association and in that year reported enrollments of 484,000 in extension classes for credit and more than 193,000 in noncredit classes. More than 150,000 students were enrolled in correspondence or "home study" courses for college credit and nearly 28,000 in noncredit courses. In high-school courses or "home study" courses more than 30,000 people were enrolled, and nearly 250,000 were in reading courses, short courses, and institutes.

The increasing interest and the varied activities of the national association and of the member institutions may be seen by the subjects discussed at the annual meeting in 1949. These included audio-visual aids, radio and television, regional film services for television stations, industrial relations and workers' education, community organization, technical institutes, the contribution of universities to the program of the United States Armed Forces Institute, the expansion of extension offerings, inter-institutional relations, how to gauge and shape the convictions of adults, adult education and atomic energy, and the "great books" program. That the association was alert and resourceful appeared in the fact that atomic energy as a field of knowledge for adult education was prominent on the program.

State Institutions Active

Apparently and quite naturally, state universities and land-grant colleges have been more active in extension services than private and independent institutions. The strength of American educational institutions, said the president of a great state university, lies in its "close relations to the state," which demands service of the university, which feels a peculiar obligation to the state. And it is the duty of the university to instruct young men and women, and to advance knowledge, especially "those lines of knowledge which concern the development of the state," he continued.

In this philosophy and tradition higher educational institutions have promoted their educational services in many directions. Whatever the criticisms, it must be said that these are democratic educational efforts and, to those who would find the educational rainbow, have become as American as baseball and apple pie. In the early years these undertakings were looked upon with some suspicion by university faculties and were considered "the Salvation Army of the educational forces." But more and more have these services come to be looked upon as centers of light and learning. True, university extension represents a wide divergence from the traditional view of higher education, which was the selective view, a sort of educational predestination. This was reflected in some lines attributed to the attitude of the old institutions in their early days:

"We are the sweet, selected few;
May all the rest be damned.
Hell was meant for the residue.
We'll not have Heaven crammed."

Preventive Maintenance Pays Good Dividends

By A. D. BRAINARD
Assistant Superintendent in Charge of Business and Finance, Dearborn, Michigan

THE basis of preventive maintenance is an adequate inspection program. In developing the program, something more than a casual routine must be established. To inspect, one must have a definite aim. Each school system should develop for itself an adequate inspection program.

There are several categories in which the scope of operation and maintenance inspection can be classified. A convenient division is this:

1. Roof, including gutter and cornice work.
2. Walls, both interior and exterior, including doors and windows.
3. Attic.
4. Floors and foundations, including stairways.
5. Stacks, towers, and so forth.
6. Heating and ventilating units.
7. Electrical system.
8. Plumbing, with special emphasis on toilet and shower units.
9. Furniture, fixtures, equipment, and instructional apparatus.
10. Grounds, including walks, curbs, pavements, trees, and so forth.
11. Miscellaneous, including clock, telephone, signal systems, and so forth.
12. Operation and maintenance personnel, with special attention to dress and appearance.

In-Service Training Needed

Any inspection program, if properly carried out, should promote the efficiency of personnel. As yet there is little professional status for school operation and maintenance employees, especially for custodial workers. Therefore, many new employees of this sort are selected from lists of applicants made up largely of unskilled laborers. In-service training of some sort becomes necessary.

Inspection can assist in-service training for operation and maintenance employees through constructive criticism, suggestions, and instruction. It should also locate and select new and better practices in maintenance and operation initiated by employees. Such practices should be given recognition and passed along to other staff members.

Whenever an inspection for appraisal purposes is made by persons in authority, they should be accompanied by those whose work is being inspected. This will make for a better relationship among inspectors and employees and help to prevent the ill-feeling that often results from the "spying" or "snooping" type of inspection.

Operation efficiency is the result of a thorough knowledge of the school plant in all its aspects. Changes can be made in many schools to increase educational efficiency at no added cost or to maintain present efficiency at smaller cost. Many instances are on record where savings in electricity, water, and fuel, or other operation items have resulted when inspection brought a problem to light.

One school with an enrollment of 10,000 pupils recently made changes in lighting, power, and water usage which not only made possible an annual saving of over $2,000 per school year, but also actually increased efficiency as well. This was the result of replacing obsolete toilet fixtures in several buildings, and rearranging power units, switching controls, and light fixtures. In one situation, replacement of fixtures in a library reading room decreased the load from 8,200 to 5,600 watts, yet stepped up the average illumination on reading table surfaces from only eight to 37 foot-candles.

While it was necessary to expend approximately $4,000 for new materials in making these changes, the savings will more than equal the material cost by the end of the second year. In addition, increased operating efficiency and, in most instances, much better services are being rendered as a result of the changes.

The number of persons concerned with inspection will vary with the size of the school system. The smaller the system, the fewer the persons concerned and the fewer the problems involved. In most systems, however, there is one executive head upon whom the responsibility will devolve. The larger the system, the greater the possibility that the executive will delegate to others at least a portion of the work concerned with the control of operation and maintenance.

A superintendent of schools may delegate responsibility for inspection to his assistant. The assistant in turn may expect cooperation from building principals, head custodians, city firemen, and insurance underwriters.

The more individuals concerned with inspection, the better the operation and maintenance of the school plant should be. One person may be trained in inspecting for fire hazards, another for structural defects. Others may be on the lookout for increasing educational efficiency in vocational shops, improvement of lighting, or need for repainting walls. *(Turn)*

For more facts use Inquiry Card. S&CM-3M



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More than that, these new Dodge chassis give you greater power than ever—plus new ease of handling, increased braking safety and a host of other new advantages.

Small wonder, then, that you'll enjoy extra safety, extra economy and extra dependability with a Dodge *"Job-Rated"* school bus chassis. Get all the facts from your nearby Dodge dealer.

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MODEL FS-152	MODEL FS-170	MODELS GS-192, HHS-192	MODEL JS-212	MODEL RS-229
2 models—10,800 and 11,900 lbs. G.V.W. For 30 and 36 pupils.	2 models—12,025 and 13,000 lbs. G.V.W. For 36 and 42 pupils.	GS-192, 14,650 lbs. G.V.W. HHS-192, 15,500 lbs. G.V.W. For 48 pupils.	2 models—16,125 and 17,000 lbs. G.V.W. For 54 pupils.	2 models—18,075 and 19,000 lbs. G.V.W. For 60 pupils.

Preventive Maintenance Pays Good Dividends

(Continued from page 7)

In addition to an adequate inspection program, it is essential for the maintenance department to keep an accurate record on each school building. How this record is organized depends upon the system in which it is going to be used.

It might be organized according to various parts of the building. For example, all information on roofs might be kept in one section, giving installation date of the roof, manufacturer's guarantee or bond, cost, and other related data. Or such information might be kept separately by school, if that seems better.

It has been our policy when new buildings are erected to require the architect to provide us with the names of all subcontractors and materials they have used. For example, in the case of asphalt tile, we want to know who installed it, the manufacturer's name, the color, and the grade. We feel that this information will be very helpful to us in later years.

In most school systems it is impossible for the maintenance department to do all the work which inspection may indicate should be done. It is therefore necessary to develop criteria for selecting items which should receive attention first. Watch for:

1. Items of maintenance which stop deterioration.
2. Items which contribute to the safety and health of the students.
3. Items which will improve the educational program.
4. Items which will improve the attractiveness and beauty of the plant.

With these criteria in mind and with the inspection records available, it is possible to lay out a long-term program.

It has been my policy to keep in touch with industry to determine what methods are being used for various types of maintenance. Often we can gain much information from a practical and technical knowledge of their experience.

Of course, one should always be on the alert for any new materials and methods which are being developed. But exercise caution, and take into consideration the fact that such items and methods should be proven before they are adopted as standard procedures.

Service from Industries

It is desirable in many cases to use the services of certain companies, and sometimes industries, to assist in solving maintenance problems. As an illustration, the Portland Cement Association has an engineer available to give advice on the maintenance of concrete products and on the installation of new concrete.

Certain oil companies will make a survey of school systems, without charge or obligation, on the proper use of oil and lubricants for the various machines and equipment. There are similar services available without charge or obligation to assist school maintenance.

As far as possible, try to limit the various sizes of glass in windows and doors, the numbers and types of locks on doors, panic bars, door closers, faucets, heating plants, temperature controls, and classroom equipment. With fewer types and sizes of material and equipment, a smaller but more complete stock of repair parts can be kept handy.

In addition to securing properly trained men, the school administrator can make it possible for the men to learn more about the jobs they are expected to do. They can offer the men in-service training classes. It is advisable in some situations to send employees to the factories that make some particular equipment. This service is often available.

Lastly, in any program of preventive maintenance, it is desirable to work out a procedure for handling emergency repairs within a very short period of time. When an emergency develops, the personnel to take care of it should be available immediately.

Condensed from a talk given before the Association of School Business Officials

For more facts use Inquiry Card. S&CM-4M



WEATHER DESTROYS...24 hours a day

Every minute of every day natural forces are eroding and spalling the exteriors of even the finest schools—causing costly interior damage. These destructive weathering effects can be stopped!

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This is the low-cost, budget-wise way to protect your school building investment. Forestall damage and disintegration to brick, concrete, stone and terra-cotta surfaces, and the eventual destruction of plaster and other interior finishes.

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JEFF SAYS



In storing food for school lunchroom use remember that no food should be placed directly on the floor. Place cardboard food containers on two-by-fours. See that shelving is of a height accessible to the women employees. Put new inventory on the back of the shelves so that the first food in is the first food used. And when foods are marked "Store in a cool place," be sure to do so. . . .

Julius Barbour



Posters Are Now Available For Children's Day, 1951

CHILDREN'S DAY will be observed generally on Saturday, June 9, and in the churches on Sunday, June 10. Many state governors and many mayors are planning to issue proclamations calling for the observation of this special day.

Many schools, parents' associations, and other civic groups are planning special observances in the week preceding Children's Day to call attention to the needs of children.

Children's Day posters in full color are available at $1.15 each; and four-color streamers, 10 x 24 inches, at 25¢ each, postpaid from the Children's Day National Council, 52 Vanderbilt Avenue, New York 17, N. Y. Any profit resulting from the sale of these materials will be used for child welfare purposes.

On the Calendar

American Industrial Arts Association, New York, May 2-5.

National and Inter-American Music Week, May 6-13.

National Conference on Citizenship, Washington, D. C., May 16-20.

Building Service Employees and Supervisors Course, Teachers College, Columbia University, New York, June 4-8.

National Training Laboratory in Group Development, first session, Gould Academy, Bethel, Maine, June 17-July 6.

National Association of Student Councils, Wellesley, Mass., June 18-21.

Mount Holyoke Institute on the United Nations, South Hadley, Massachusetts, June 24-July 21. The program will deal with the crucial world problems confronting the United States and the United Nations today. Information and application may be obtained from the Executive Secretary.

American Home Economics Association, Cleveland, June 26-29.

National Science Teachers Association, San Francisco, June 28-July 2.

National Education Association, San Francisco, July 1-7.

Department of Elementary School Principals, NEA, San Francisco, July 9-20.

Department of Classroom Teachers, NEA, Oakland, California, July 9-20.

National Training Laboratory in Group Development, second session, Gould Academy, Bethel, Maine, July 15-August 3.

Institute of Organization Leadership, NEA, The American University, Washington, D. C., July 23-August 17.

American Dietetics Association, Cleveland, October 9-12.

American Education Week, November 11-17.

HOW many parents in your town study plans for the school additions carefully? Recently, an issue of *Within Our Schools,* a publication of the Garden City, New York, schools, told about one couple in that community who went over the new plans very thoroughly.

Their experience with children's theatres made them disagree with the architect's plans for the auditorium.

"Why," they asked, "must the children enter the auditorium from behind the stage? Why are there no provisions for dressing rooms? (The plan was to use classrooms.) If the auditorium is being built primarily for children, wouldn't it be better to put the stage at the other end?"

After they had marshaled all their facts, a committee of interested townswomen was formed which asked for an appointment with Superintendent Frank R. Wassung.

He found their ideas very constructive, checked with the architect, and found the changes could be made with no addition in cost. The architect approved, so did the board of education, and the plans were revised accordingly.

ELECTIVE school boards were favored over appointive boards in four out of 16 New York cities during their recent general elections. Previously all the cities had used appointive systems.... *Education Summary*

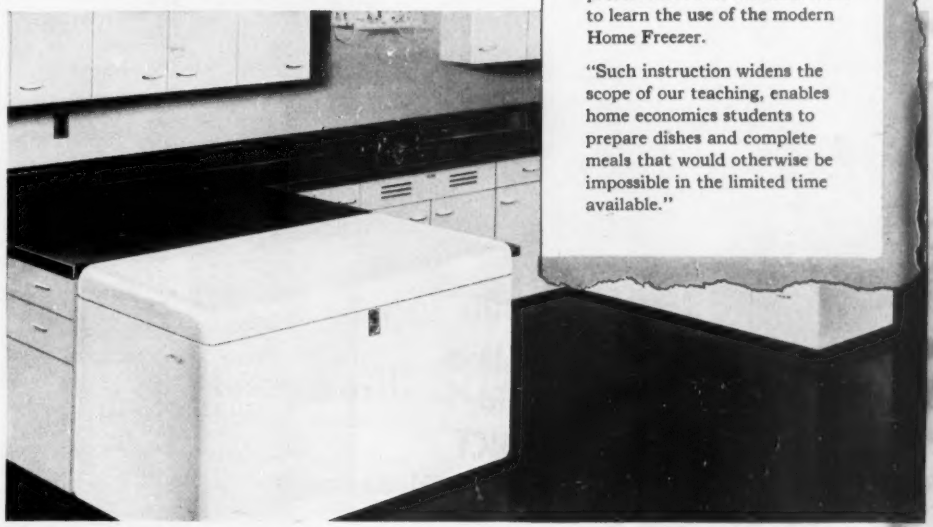
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Teachers stress need for Home Freezers in Schools

Miss Treva L. Kelly
of Riverside Brookfield High School, Student Commercial Division, Riverside, Illinois, says:

"The teaching of home freezing is a necessity in home economics courses today. So many homes use this modern method of food preservation that students want to learn the use of the modern Home Freezer.

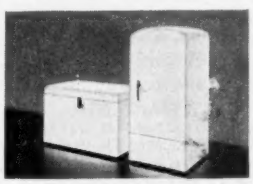
"Such instruction widens the scope of our teaching, enables home economics students to prepare dishes and complete meals that would otherwise be impossible in the limited time available."



It is essential that your school keep up with the times. To do this, it should have a modern Electric Home Freezer as part of the equipment in its home economics laboratory.

The investment is moderate, and installation is simple. The freezer is easily installed anywhere to fit your laboratory plan, and may be plugged into any convenient outlet similar to that used by an electric refrigerator.

For further information about the modern Electric Home Freezer as it applies to your school, consult with your local electric service company or appliance sales organization—or write to any of the manufacturers whose brand names are listed below.



You can't teach home freezing without a freezer!

. . . of course, it's ELECTRIC!

FARM & HOME FREEZER SECTION
National Electrical Manufacturers Association
155 East 44th Street, New York 17, N. Y.

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INTERNATIONAL HARVESTER • KELVINATOR • NORGE • PHILCO
SANITARY • SEEGER • STEINHORST • WESTINGHOUSE

FREE copy of Freezer Manual

Mail this coupon now for FREE copy of "THE HOME FREEZER WAY TO BETTER HOME MANAGEMENT." This is primarily a manual for the teaching of home freezing, but it will give you an idea of the possibilities of this all-important subject in your school's curriculum. Based upon research from authoritative sources, it took a full year to prepare. Pass it along to your home economics teacher.

FARM & HOME FREEZER SECTION
National Electrical Manufacturers Association
155 East 44th Street, Dept. SM-5
New York 17, N. Y.

Please send me FREE copy of manual described above.

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Why Schools Are Better Now

SCHOOLS of today are better, largely because they follow as a matter of course day to day, year by year, more powerful procedures that only occurred by accident in the schools of 50 years ago. They have torn themselves loose from the narrow confines of the conception of education of the early decades of this century. To do this they went through a decade or so of almost sentimental concern with great purposes. In this period they were involved in conflicts with those who could not see the great purposes. They then settled down to the long, hard but grateful task of designing practical hard-headed educational practices designed to meet these purposes.

Today, the schools are not sentimental. They are, as never before, performing tasks that include not only a better doing of the task associated with the basic skills and knowledges, but significant work in the discovery and development of individual talents for the arts we live by. They are making a notable beginning in dealing with such far-reaching behavior patterns in the individual as character, personality, thinking, home living, and citizenship. . . . *Paul Mort, Teachers College, Columbia, at the recent AASA convention*

IN Michigan there are approximately 1,600 "closed" school districts which do not operate even one school!

For more facts use Inquiry Card. S&CM-6M

John C. Fremont High School, Los Angeles, California

Compact GAS cooking battery includes—two hot-top ranges, one griddle-top range, one steamer, and one sectional baking and roasting oven.

● Interior and exterior food service areas provide facilities for almost 1900 students and teachers during 40-minute period.

Food Service Scheduling for School Cafeteria EMPHASIZES EFFICIENCY OF MODERN *GAS* KITCHEN

• 47 SERVINGS PER MINUTE—that's rapid service for any volume cooking establishment, but needed especially for a high school cafeteria which has a serving period of only 40 minutes. At Los Angeles' John C. Fremont High School, this schedule is maintained every school day—with a hot entree served from the school's compact Gas kitchen.

In 20 years of growing to its present 1887 student and faculty population, the school cafeteria has employed GAS for volume food preparation. Based on two decades of experience with GAS, school authorities recently modernized with efficient Gas Cooking Tools.

Cafeteria Manager Rene H. Gardner points out that the lunch requirements of so many in such a short time are satisfied because of the absolute dependability of GAS—dependability to cook foods when you need them, as you like them.

An efficient Gas kitchen will help solve your volume cooking problems. Gas is economical, too. Your Gas Company Representative has the facts. Call him today.

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MORE AND MORE... THE TREND IS TO GAS

Decreases in School Shortages? Yes, but Progress Is Slow

SLOW improvement for the nation's schools in their efforts to overcome shortages of teachers and facilities is foreseen by the NEA in its annual survey of current conditions in the United States and its territories.

"The constructive forces which began in 1947 to correct prewar neglect and wartime losses continue to increase school revenues," Frank W. Hubbard, NEA research director, explained, "but new economic and world-wide factors have offset many gains."

Problems which complicate school recovery were summed up by Dr. Hubbard as follows: "Rising prices reduce the value of the school dollar, tax and price trends adversely affect the teacher's economic status, and competition for manpower restricts teacher supply. Higher prices and restraints upon building materials produce a lag in needed school construction, and increasing enrollments complicate the problems of finance, teacher personnel, and school housing.

Many Uncertainties

"Affecting all of those conditions are the uncertainties as to the manpower requirements of Selective Service, the rising cost of military preparations, the continuous threat of world war, and the tightening of local, state, and federal tax sources."

The report shows an average annual salary in 1950-51 of $3,080 for instructional personnel, which includes classroom teachers, principals, and supervisors, in contrast to an average of $2,980 for the 1949-50 school year.

"The dollar amounts paid to teachers," Dr. Hubbard pointed out, "continue to inch upward. The value of the increase, however, is in doubt. The current military program has already resulted in higher prices and a general round of industrial wage increases. Every such turn of the economic cycle lowers the value of all fixed salaries and incomes and brings a new need for upward adjustments."

For the first time in the nine years that the surveys have been conducted, this year's tabulation shows the total current school expenditures from local and state funds. The estimated expenditure for 1950-51 is placed at $4,784,434,170. This is an increase of $292,000,000 over the 1949-50 school year.

Other Facts from Survey

Among other facts reported in the survey are:

1. In 1950-51 it will be necessary for public schools to employ at least 79,989 teachers with substandard certificates. By contrast, each year in the late 1930's the 48 states issued only about 2,500 temporary certificates. In the fall of 1941 manpower shortages raised the number to an estimated total of 4,000 to 4,500.

2. For the current year, 43 of the 48 states report "very large" or "considerable" shortages of rural elementary teachers, while 38 states have similar degrees of shortages in urban elementary schools.

3. Although there has been some improvement in the past year in the school building situation in rural areas, three-fourths of the states still report "considerable" or "very large" shortages. Urban areas show little decrease in the proportion of states reporting a shortage of elementary school buildings. The secondary school building situation in urban districts seems slightly improved. Three-fourths of the states still report extensive building shortages in city systems.

Musings of a Placement Man

By ARTHUR V. LINDEN
Executive Officer of Field Relations and Placement, Teachers College, Columbia U.

THIS is written by a placement man who, despite snide remarks to the contrary, has a very soft spot in his heart for superintendents. It is written because this placement man, having returned from a circuit of conventions, now realizes more strongly than ever that a superintendent's life is no longer his own. It is now in the hands of a doctor, a hospital staff, and some people who love him.



Dr. Linden

Some of these superintendents have broken completely with a coronary thrombosis. Some have just gone to bed, tired out. Many have decided that with increasing gray hairs, stooped shoulders, and just plain weariness, they will from now on just go through the motions.

The beating a superintendent takes in these days is one that should not be inflicted upon any one man. That superintendent is supposed to be an educator. He would like to be one. More often, though, he is expected to be a public relations man, a speaker, and a pourer of oil upon troubled waters. He is expected to be an expert on buildings, on bond issues, on Red Cross drives, on Sunday school rallies—in fact, on all things to all people.

No one man can do all these things. He needs help.

No man in a business post comparable in responsibility to that of a superintendent would be expected to do all of these things. A board of directors would rebel, saying that their stock owners expect leadership from the top man, and not attention to millions of piddling details. They would demand that a young assistant be brought in to handle those details.

It is time that every superintendent in this country be given one of these young assistants. A Man Friday. A young man who can do the leg work and the detail work that the leader should not have to do.

These young men are available. Returning from the last war they have decided that their mission now is to learn the business of a superintendency. They want experience. They can keep going for some 18 or 20 hours a day. And they want to do just that.

To school board members, then, just a word.

Get someone to help your superintendent. Let your superintendent be a leader. Take the details away from him. Get deadly routine off his neck. Find a young man to help him!

It's not only good business, but just plain common sense. When you pay a man good money, give him a chance to earn it! Clerical help and minor assistants are relatively inexpensive.

But a superintendent's life is not cheap! He is worth much to your community! You are responsible for him! Take care of him! Give him the help he needs!

OUR State Department has learned that Poland has almost doubled last year's outlay for education, according to the *Educator's Washington Dispatch*. Grants to public libraries will be doubled and the budget for vocational schools is to be increased 33 percent.

PLANS have been announced for the construction of an arts, crafts, and music center by the Horace Mann School in New York City, the first of several buildings to be erected in an over-all 15-year program of development. The art and music center, costing approximately $175,000, will be named in honor of Dr. Charles Carpenter Tillinghast, who retired in June, 1950, after 30 years of service as the school's principal.

Among the facilities included in the new building will be a large music rehearsal room, with banked seats and a stage, to accommodate a full orchestra, chorus or band; soundproof practice, listening, and recording studios; a music library; a workroom for repairing and making instruments; a large art studio with unobstructed north light; a crafts studio, woodworking and metalworking shops; exhibit and display areas; an art library; and arts and music offices.

The over-all 15-year program of development was worked out in collaboration with Nickolaus L. Engelhardt, Jr. a graduate, and member of an educational consultant firm. The long-range plan calls for the construction of new athletic facilities, three additional buildings, a large theatre-auditorium seating 600 persons, a student center, and a new gymnasium wing.

A SCHOOL fruit bar will do much to preserve the teeth of the children.

For more facts use Inquiry Card. S&CM-7M



If you have a school bus that "plays hooky" better see the Schoolmaster!



Don't put up with a school bus that spends time in the garage when it should be out on the route.

Make your school bus operation really efficient by trading the school bus with a "poor attendance record" for a new International Schoolmaster. Then you'll have a school bus working for you that you can really depend on.

You can depend on a Schoolmaster to stay on the job

A new Schoolmaster will make you forget about the kind of weather you'll have next winter. Every International Schoolmaster has heavy-duty engineered ruggedness that helps it maintain schedules under the toughest operating conditions. Pupils get to school on time in a Schoolmaster.

You can depend on a Schoolmaster to help you build a better safety record

Pupils ride to and from school in safety in a new International Schoolmaster. This school bus offers heavy-duty engineered stamina in every part to protect against on-the-road failures that could spell trouble. It offers safer steering and easier maneuverability to make safe driving easier.

You can depend on a Schoolmaster to cut costs

Your school bus budget goes farther when there's an International Schoolmaster on the route. Maintenance costs are lower because every Schoolmaster has heavy-duty engineered durability throughout. Operating costs are lower because every Schoolmaster is powered by a new, more thrifty, valve-in-head engine.

Have your school bus needs analyzed before next school term

Your nearest International Truck Dealer or Branch will be glad to analyze your school bus needs at no cost or obligation to you. Find out how new International Schoolmasters can solve your school bus problems for years to come. Choose the right model from the complete new Schoolmaster line.

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Every model heavy-duty engineered for longer life

Check Product Information, page 21. Use the Inquiry Card to request further details from advertisers, and about new product.

FOOD SERVICE DEPARTMENT



By MARY FARNAM
Editor, Food Service Department, and Director of School Cafeterias, Cleveland Heights, Ohio



If your foods are tasty enough, they'll sell themselves

MENU HEADLINERS FOR THE MONTH OF MAY

Soups, salads, and sandwiches seem to be top favorites

MAY usually brings a rush of traditional school and college parties. May Day breakfast, luncheon for the May queen and her court, Father Daughter banquets, graduation parties, reunion festivities, awards dinners, and on and on depending on the scope and traditions of the community. These are the highlights, but in the background are the day-in day-out menus for regular food service.

Unseasonable hot days mean lagging appetites or perhaps an epidemic of "gulp and run" among students rushing off to committee meetings or hurrying outside to enjoy the wonderful May weather. Whatever the situation, nature has made ample provision for supplying food service needs with a generous variety of fresh fruits and vegetables that come into season as the corner is turned from spring into summer.

Strawberries, rhubarb, berries, cantaloupes, and California Valencia oranges are coming to the peak of their seasons in some sections, while some apples are still good, and the ever popular banana and pineapple are ever in season. The list of vegetables is longer with summer squash, broccoli, asparagus, and sweet corn coming into their peak seasons, as well as new potatoes, radishes, carrots and the perennial favorite green peas. In the "flavor vegetables," fresh green onions and cucumbers are plentiful.

Because of our highly developed production, marketing, transportation and merchandising systems, we are accustomed to being able to buy most any fruit or vegetable anywhere, any time throughout the year. But food that is at the peak of the season is usually the best buy, and the appetite appeal of really fresh seasonal fruits and vegetables is irresistible. Of course we can not get along without our stand-bys—the canned and quick frozen foods, which are ready to use. But who does not enjoy the full fresh flavor of whole strawberries each with its fresh green hull, served with a mound of powdered sugar, into which they can be dipped one by one?

Soups and salads seem to "go together" in May and with sandwiches, open-faced or double, offer an endless variety of good, wholesome, and hearty foods to tempt the daintiest or the huskiest appetite. Boys used to consider salads sissy stuff, but watch the salads sell to the men and boys that know and like good food!

Mix the hot and cold combinations, as it's poor nutrition to serve only cold food in hot weather. Soups can be hot or cold, as can sandwiches. You can serve hot potato salad with a cold meat assortment or sandwich. Eggs are now plentiful, and the ever popular deviled egg is delicious either hot or cold. Some of the regular hot foods such as macaroni and rice can move down to the salad counter and be fast sellers.

Slivers of ham, cheese, chicken or turkey, slices of wieners, cubes of luncheon meat or squares of crumbled crisp bacon can add substantial protein to a salad. Shrimp, either whole or in pieces, when combined with rice that has been cooked with just a hint of garlic or onion and then chilled makes a salad that is a whole meal in itself. Cornucopias or rolls of cold cuts filled with cottage cheese, or egg salad, asparagus tips, or a mixed cooked vegetable combination that is well seasoned, make a man's salad. Single, twin, or triple small salads plus a few potato chips, crisp cold shoestring or lattice potatoes give variety of flavor, color, and texture.

Salad and sandwich combinations are popular. Pictured this month are several such combinations. One is a mound of tuna fish, with pickle chips, a wedge of tomato, and potato chips for crisp crunchiness. Fruited gelatin, plain or tomato aspic, in individual cup or ring mold teams up with cottage cheese and with open-faced or finger sandwiches filled with tuna fish, egg salad, or vegetable mixture. These salads are a must on the counter with any menu combination.

Other stand-by salads are plain cottage cheese; tomato or fruit and cottage cheese; tomato, cottage cheese, and hard boiled egg slices or deviled egg half. Except for tossed or potato salad do not add dressing. Place bowls of dressing on the counter so each student can take what he wants of the kind preferred. Then, too, salads which do not have dressing on them can be taken apart if not sold and the material re-used to better advantage. Prepare the ingredients ahead of time and assemble them continuously as needed, always keeping the salad counter filled. Sell salads in sauce dishes for half the price of the salad plate portion. The salad and sandwich combination plates sell for twice the large salad cost.

Relish dishes may combine sweet pickle chips, carrot and celery sticks, and rose radishes. Surprisingly plain carrot sticks, cool and crisp, almost outsell any regular or combined salad. This is particularly true in the elementary schools.

Incidentally, the dishes shown in the picture are green patterned on white. We also use pale green glass plates and clear and pattern embossed white glass salad plates. The same combination on different plates looks quite different. That's one way to vary the appearance of the serving counters.

Citrus fruits are cooling in hot weather, taste delicious, and are good nutritionally because of the high vitamin C content. Citrus fruits contain, on the average, 15 milligrams of vitamin C per ounce of juice. In addition to vitamin C, citrus fruits contain thiamin (vitamin B_1), and riboflavin. Oranges contain some vitamin A which is associated with the orange color, while lemons contain vitamin P, known chemically as "citrin." Calcium, iron, and copper are also furnished by citrus fruits.

The fruit acids give lemons, oranges, grapefruit, and limes their thirst-quenching, refreshing flavor. The carbohydrates in the form of fruit sugars furnish easily digested calories that burn in the body giving energy which everyone needs, especially in hot weather. The National Research Council has established 50 to 100 milligrams per day as the vitamin C requirement for school age children. Therefore one half to one cup of citrus juice will supply a whole day's requirement of this essential vitamin. Therefore use as many citrus fruits as possible in your hot weather menus and dishes.

Since hot foods are essential in hot weather a cup or bowl of soup is a good item around which to plan your special daily menus. Clear, cream, or vegetable soups are always good. Variety can be achieved by combining two or more kinds of cream soups and topping with various garnishes. Chopped chives, finely minced green onion tops add zip. Crumbled bacon or coarsely ground peanuts add contrasting color, a taste treat, and extra protein to light cream soups. Paper thin frankfurter slices and riced or sieved hard cooked eggs will give the same result.

Chilled soups are good, too. Probably the leader is jellied consommé, either plain or with tomato added. Chilled soups are easily prepared with canned ready-to-use soups. Add the needed amount of water or milk to the soup, then chill for at least four hours. The secret of good cold soups is this thorough chilling. Be sure the cups or bowls used for service are cold.

The following canned soups lend themselves particularly well to this method of serving: cream of asparagus, celery, mushroom, or chicken, alone or combined with each. For garnish add tiny buttered croutons, plain or with a hint of garlic. Or try dry cereals such as tiny whole wheat biscuits, or the small round doughnut-like cereal browned in butter or margarine. Puffed wheat or rice can be used, too. French fried noodles atop soups will stay crisp until eaten if added as the soup is served. Coarsely grated cheese is also good.

Sandwiches are always with us. They should look good and taste good. Open-faced, closed, or two or three deckers. Each type has its place in any hot weather menu. Use a variety of breads. Of course the basic stand-by is enriched white bread, but cracked wheat, graham, whole wheat, rye, sandwich and wiener buns, fruit and nut breads all are good. Sandwiches can be served hot or cold, thus adding to the almost endless number of combinations that can be planned with the use of a little imagination. On salad plates, two or three small sandwiches, each with a different filling, give a variety of texture and flavor. Buns either toasted or plain can be filled with any sandwich mixture and are easy to eat. They are a fast selling item, popular with students of all ages.

Girls usually like special sandwiches with double filling and two slices of

bread. These can be wrapped in a colored wax paper to distinguish them from regular size. Boys and men usually want the extra bread or will "go for" the double and triple decker sandwich, each deck with its own filling.

For variety use one slice of cracked wheat and one slice of white bread, and reverse the halves for contrast. If several kinds of sandwich fillings are made up in advance, it is easy to make assorted sandwiches mixing the two or three kinds on one order. Be sure your fillings are seasoned right, are of good texture, and not too runny nor too dry. Don't use unspread bread for either part of your sandwich. Use butter, margarine, or mayonnaise. Lettuce in any sandwich adds a certain something. All foods on the May menu should have eye appeal, satisfy the appetite, and furnish that extra energy for the warm spring days. For example, chicken or turkey rolled in biscuit dough and baked, served with a chopped egg sauce is delicious.

New Ways with Old Foods

Bread "patty shells" made of rounds of toast make a different base for any creamed combination dish. These shells add a festive touch for a special party menu. Steamed eggs with fresh asparagus tips, drenched with a tasty cream sauce, are a happy combination. Peas and salmon in a chicken cream sauce, and new potatoes á la king are different ways of serving familiar foods.

Although canning and freezing make all vegetables available the year around, try summer squash with its springlike yellow color and delicate flavor, fresh broccoli, and asparagus. Watch for the right price, then buy new green peas and fresh sweet corn which come into season in late May or early June in some parts of the country. Then try new ways with the ever-available carrots. But don't combine them with peas. Each has its distinct flavor which should not be spoiled by combination. A dash of sugar improves carrots, and sliced stuffed olives give zest. Other vegetables not so often used are eggplant and okra. Each is worth a place on your menu.

In the dessert section, fresh strawberries, rhubarb, and pineapple lead the list. Each is good "as is" by itself and each seems to blend flavors with the others satisfactorily. Your students may have definite ideas about whether strawberry shortcake should be made with cake or biscuit, but either way is good. Angel food cake, white or chocolate, can be spooned on at the last minute. If you do not have angel cake pans, make it in sheet pans and serve in squares or oblong pieces.

Warm Weather Desserts

Other good warm weather desserts are cottage cheese pie, lemon cake top pudding, strawberry tarts, strawberry ice cream pie, rhubarb sauce, and rhubarb pie. Serve gelatine cubes with a foamy cream sauce over them, or as a change try whipped gelatine, instead of plain molds or cubes. Cookies are everyone's favorite; they can be eaten on the way to a meeting or on the campus. Fruits in any form are a must as a dessert. There are endless ways to serve them, but the best way is in their natural form or cooked as simply as possible to retain all the natural goodness.

So, as another school year ends, make that extra effort to make your salads sing, your soups the kind that make folks come back for more, your sandwiches so good they sell themselves, your hot dishes and vegetables extra special, and your desserts "out of this world." Inspire your employees to do a better than average job of their food production and serving. End the year with such delicious food that your students will go away talking about your food and bemoaning the fact that there just isn't such good food as you serve anywhere else!

Menus, soup, salad and sandwich combinations that have successfully been used by experts follow. These suggestions are taken from "School Meals," a book published by the School Food Service Association. It was written by 17 Association members, with Constance C. Hart, director of nutrition, Rochester, New York, board of education, as chairman. This book is available from Miss Hart for $2.50. The book is full of ideas for any school food service manager.

MENUS FOR SCHOOL PARTIES

1. For the Boys

Meat balls with spaghetti
Tossed salad
Assorted rolls and butter
Ice cream
Butterscotch cookies
Coffee or milk

2. For the Friday Party

Grapefruit juice
Raspberry sherbet
Oven fried haddock with tartar sauce
Potatoes au gratin
Harvard beets
Cabbage, pineapple slaw
French bread and butter
Lemon pie
Milk or coffee

3. Steak Dinner

Chicken gumbo soup with crackers
Filet mignon

(Turn page)

For more facts use Inquiry Card. S&CM-8M



Menu Headliners for the Month of May

(Continued from page 13)

Boiled new potatoes, buttered and served with parsley
Buttered peas
Tossed vegetable salad
Assorted rolls and butter
Meringue cake, whipped cream and strawberries
Milk or coffee
Mints
Nuts

4. A Supper Party

Clear tomato soup
Cold cuts—Thuringer, Bologna, and liver sausage
Potato salad
Sweet pickle
Cottage cheese
Assorted rolls and butter
Apple pie
Milk or coffee

5. Mixed Group Party

Blended juices
Whole wheat toast sticks
Swiss steak
Mashed potatoes
Buttered asparagus
Olives, celery, carrots, and other similar vegetables
Assorted rolls and butter
Meringues with ice cream
Strawberries
Milk or coffee

SALAD PLATES

1.

Prunes stuffed with peanut butter in lettuce cup
Ground ham sandwich
New potatoes au gratin

2.

Grapefruit in lettuce cup
Deviled egg salad on shredded carrots
Peanut butter and relish sandwich

3.

Macaroni—vegetable salad served in a lettuce cup
Egg relish sandwich
Deviled meat sandwich

4.

Raw vegetable salad
Grilled cheese sandwich
Creamed potatoes
Honey cupcake

SOUP AND SANDWICH COMBINATIONS

1.

Cream of tomato soup
Vegetable-macaroni salad topped with chopped egg
Sliced cheese sandwich

2.

Cream of tomato soup
Chicken salad sandwich
Fruit cup

3.

Chicken soup
Sliced ham sandwich
Vegetable and potato salad

4.

Spanish bean soup
Cream cheese supreme sandwich
Fruit cup

5.

Cream of vegetable soup
Sliced ham sandwich
Cabbage and pineapple salad

To whet appetites try the recipes listed here. They are furnished by American Dry Milk Institute, American Institute of Baking, California Fruit Growers Exchange, Campbell Soup Company, Fish and Wildlife Service, H. J. Heinz Company, National Dairy Council, and Standard Brands.

Jellied Consommé
3 quarts

7½ ounces salad gelatin (aspic)
6 cups boiling water
6 cups cold water

1. Dissolve salad gelatin (aspic) in boiling water. Do not cook.
2. Add cold water and mix well.
3. Pour into serving pans or individual cups. Chill until firm.
4. If molded in serving pans, break up the mixture with fork. Place in individual cups.
5. Serve garnished with lemon slices or parsley sprigs.

Bread Patty Shells
26 patty shells

2 3-pound loaves enriched bread, sliced
1 cup milk
½ cup shortening, melted

1. Use three slices of bread for each patty shell.
2. Cut each slice into "rounds" with a large cookie cutter. Cut centers from ⅔ of the "rounds" with a smaller cookie cutter to form "circles."
3. Brush the top side of the "rounds" and both sides of the "circles" with the milk.
4. Stack two "circles" on one "round" to form a patty shell. Brush top, side, and center of each of the patty shells with shortening.
5. Place shells and centers on a greased baking sheet. Bake in a hot oven (400 degrees F.) for 20 minutes, or until shells are crisp and lightly browned.
6. Top the filled patty shell with the center.

For more facts use Inquiry Card. S&CM-9M



Hot off the Press!



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Keyes new Catalog—just printed—brings you helpful, up-to-the-minute information on plastic tableware and serving trays. Product pictures (in full color), complete specifications and blueprints—here's the whole story of KYS-ITE Tableware and Serving Trays. Neatly tabulated for buying reference.

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Let us send you the TABLEWARE-SERVING TRAY SECTION of the new catalog which contains this valuable information. Mail coupon today.

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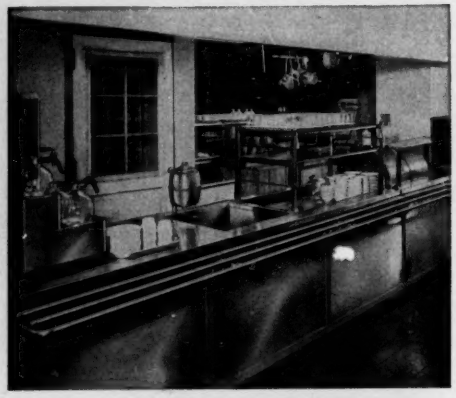
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Heinz photo

Bean Club Sandwich
Serves: 56-60

1 #10 can baked beans in tomato sauce
***3⅓ cups (5¼ ounces) dehydrated onions**
5 tablespoons Worcestershire sauce
3½ pounds bacon (cut strips in half) one strip on each sandwich
Lettuce leaves
5 Pullman loaves bread
1½ pints salad dressing
5 pounds tomatoes (approximately 2 slices on each sandwich)

1. Mash beans. Add onions (which have been soaked in water 20 minutes) and Worcestershire sauce.
2. Mix well.
3. Fry bacon until crisp.
4. Spread one slice of toast with salad dressing.
5. Arrange lettuce, bacon, and tomatoes on toast.
6. Cover with a second slice of toast.
7. Spread with the bean mixture.
8. Cover with a third slice of toast. Cut diagonally. Garnish with pickles.

*If fresh onions are substituted, use 4 pounds chopped.

California Sandwich
24 sandwiches

3 3-ounce packages cream cheese
3 tablespoons butter or margarine
¼ cup mayonnaise or salad dressing
1 teaspoon lemon juice
1 1½-pound loaves round whole wheat or enriched bread, sliced
½ dozen oranges, peeled and sectioned

1. Combine cream cheese, butter, mayonnaise, and lemon juice until light and fluffy.
2. Spread on each slice of bread. Garnish with orange sections.

Chicken Roll with Egg Sauce
25 servings, 6 ounces each

1 cup chicken fat
1½ cups flour
2 cups nonfat dry milk solids
½ gallon chicken stock
1 tablespoon salt
⅓ teaspoon pepper
2 quarts cooked chicken, cut in cubes
6 hard cooked eggs

1. Melt fat; add flour, salt, and pepper.
2. Add lukewarm chicken stock. Blend well.
3. Slowly sprinkle nonfat dry milk solids on top of mixture, beating carefully with French whip. Cook until mixture is smooth and thick. Add half of the sauce to the chicken.
4. Prepare the baking powder biscuit dough (recipe below). Roll out into rectangular pieces ½-inch thick. Spread with chicken mixture. Roll up like a jelly roll. Place in a greased baking pan.
5. Bake at 400 degrees F. for 20-30 minutes.
6. Slice into servings and serve with the remaining half of sauce to which the chopped cooked eggs have been added. Thin sauce, if necessary, with some of the stock or water.

Baking Powder Biscuit Dough

2 quarts flour, general purpose
1/3 cup baking powder
1 tablespoon salt
2⅓ cups fat, hydrogenated
⅓ quart nonfat dry milk solids
2½ cups water

Mixing Machine Method

1. Sift dry ingredients, including non-fat dry milk solids, into bowl of machine.
2. Add fat to flour mixture and mix with flat paddle for 3 minutes at low speed.
3. Add water and mix for 30 seconds, at second speed.
4. Turn out of mixing bowl onto lightly floured board. Divide dough into fourths and knead each fourth lightly 10 to 12 times.
5. Roll to ½-inch thickness. Cut and place on oiled baking sheet. Brush tops with milk.
6. Bake at 425 degrees F. for 12-15 minutes.

Hand Method

1. Sift the dry ingredients together. (If the flour is cold and heavy, sift several times.)
2. Add the fat. Mix lightly and quickly into flour with fingertips.
3. Make a well in the center of the flour mixture. Add all of the liquid at one time, mixing lightly. The dough mixture should then be as soft as can be easily handled.
4. Divide dough into fourths, take out on lightly floured board. Knead each fourth lightly 10 to 12 times.
5. Roll to ½-inch thickness. Cut and place on oiled baking sheet. Brush tops with milk.
6. Bake at 425 degrees F. for 12-15 minutes.

(Turn page)

For more facts use Inquiry Card. **S&CM-11M**



RAISE THE FLAGS—for 10 years of enrichment!

Yes, it was ten years ago this May that U.S. bakers and millers voluntarily started enriching white bread and flour—thus contributing immeasurably to the nation's well being. An eminent nutrition authority says:

"Enrichment of bread has meant not merely enriching the bread, but enriching the lives of many of our fellow citizens—enrichment of life measured in a greater zest for living and improved resistance to disease."

As part of a school-wide emphasis on nutrition, the children in the picture above have constructed a cardboard model of a slice of bread . . . and have made flags representing various nutritive elements found in this common food. Thiamine, riboflavin, niacin and iron—the enrichment ingredients added to flour by millers and bakers—become more than just "big words" as the class learns what these, along with the other nutritive elements in bread, contribute to their over-all daily diets. And another big step forward in the study of foods is made as the children learn that "enriched" on a loaf of bread, a sack of flour, a package of rolls means *more* essential vitamins and minerals!

If you'd like help in starting or expanding a nutrition project, suggestions for dramatizing any phase of nutrition work, write to: Education Section, Dept. of Public Services, General Mills, Minneapolis 1, Minn.

VITAL STATISTICS ON FLOUR ENRICHMENT



Before the enrichment program was started ten years ago, virtually none of the nation's white bread and flour output was enriched. Today about 87% of family flour and 80% of commercial bakers' bread and rolls have extra vitamins and minerals added. To date, 26 states with 56% of the total population have laws requiring enrichment.



Copyright 1951, General Mills, Inc.

Menu Headliners for the Month of May

(Continued from page 15)

New Peas and Salmon in Chicken Cream Sauce
24 servings

- 8 cups of fresh shelled peas or 48 ounces frozen peas
- 2 cups milk
- 40 ounces cream of chicken soup, condensed
- 4 cups salmon, in chunks
- 24 pieces toast

1. Cook peas in small amount of unsalted water until tender. Drain.
2. Using a double boiler, slowly add milk to the soup, stirring it constantly. Then heat.
3. Add peas and salmon. Heat to blend flavors.
4. Serve on toast, biscuits, french fried noodles, or rice.

New Potatoes à la King
24 servings

- 6 pounds new potatoes
- 40 ounces condensed cream of mushroom soup
- 2 cups milk
- 4 cups cubed cooked chicken (leftover or 4 6-ounce cans boned chicken)
- 4 tablespoons chopped pimento

1. Cook potatoes, covered, until done, about 30 minutes in 1 inch of unsalted water; drain.
2. In the top of a double boiler, stir soup well. Mix with milk, chicken, and pimento.
3. Add potatoes and heat.

Steamed Eggs with Fresh Asparagus Tips
25 portions

- 5 pounds fresh asparagus
- ¾ pound cooking fat
- ½ pound flour
- 1 gallon milk and asparagus liquor
- 25 eggs
- 1 ounce salt
- ¼ ounce paprika

1. Clean the asparagus and cut spear ends off about 4 inches in length. Reserve rest of tender stalks for use in soup.
2. Cook the spears in a small amount of boiling water until tender. Drain, saving the liquor.
3. Blend fat and flour. Add asparagus liquor, up to ⅓ of the total liquid, and then the remainder of the milk. Season. Cook until thickened.
4. Cut the hard cooked eggs in half, lengthwise.
5. Arrange asparagus tips in serving pan. Add layer of eggs, and then sauce. Heat in oven to bring to serving temperature.
6. Serve plain or on toasted split buns.

Chocolate Chip Bread Pudding
24 servings

- 2 quarts bread cubes
- 2 cups semi-sweet chocolate bits
- 1 dozen eggs, beaten
- 1 pound sugar
- 1 teaspoon salt
- 6 cups milk
- 2 teaspoons vanilla

1. Place soft ½-inch bread cubes and half of the chocolate bits in the bottom of a greased baking pan.
2. Combine beaten eggs, sugar, salt, milk, and vanilla.
3. Pour custard over chocolate and bread. Sprinkle remaining chocolate bits on top.
4. Set baking pans in shallow pans of hot water. Bake in moderate oven (350 degrees F.) for one hour. Serve with whipped cream. (1 pint heavy cream, whipped, will top 24 desserts.)

Cottage Cheese Pie
4 pies, 6 pieces each

- ½ cup butter
- ½ cup flour
- 1 quart milk
- 2 cups sugar
- 1 1/3 tablespoons salt
- 3½ cups eggs
- 1½ quarts cottage cheese
- 1 1/3 tablespoons lemon rind, grated
- ½ cup lemon juice
- 4 pastry shells, unbaked

1. Melt butter in top of double boiler. Add flour and blend. Add milk and cook until thickened.
2. Remove from heat. Add sugar, salt, eggs, cottage cheese, lemon rind, juice.
3. Pour in unbaked pie shells and bake in hot oven (425 degrees F.) for 10 to 13 minutes, or until crust is browned. Reduce heat to 300 degrees F. and bake 50 minutes longer, or until a clean knife inserted in the center comes out clean.
4. Cool before cutting.

Lemon Cake Top Pudding
25 servings

- 2½ ounces flour
- 1 pound, 10 ounces sugar
- 2½ ounces butter or margarine
- 10 egg yolks
- 10 ounces lemon juice
- 1¼ quarts milk
- 10 egg whites

1. Cream butter with flour and sugar.
2. Add beaten egg yolks, lemon juice, and milk.
3. Fold in stiffly beaten egg whites.
4. Bake slowly in moderate oven (250-325 degrees F.) about 45 minutes, until lightly browned. This will form a cake top with a layer of custard below. No additional sauce or cream is needed.

For more facts use Inquiry Card. S&CM-12M

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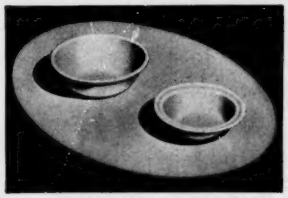
FOOD SERVICE EQUIPMENT

Consult the SCHOOL AND COLLEGE MANAGEMENT *Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.*



New Dispensing System S&CM-444M
Schools installing soda fountains will be interested in the new Coldpoint beverage dispensing system available on all new Bastian-Blessing fountains. It enables the operator to dispense uniformly-proportioned carbonated or plain beverages directly from a draft stand. With it soft drinks or fruit base water drinks can be dispensed by the mere push of a handle.

The draft station with two heads occupies space only in the syrup rail—space which ordinarily would be used for handling the syrups for the two drinks dispensed. Since both water and syrup lines are mechanically refrigerated, every drink is chilled to the proper temperature even at fountains not in constant use.... Use the Inquiry Card or write to Bastian-Blessing Company, Dept. S&CM-444M, 4203 Peterson Ave. Chicago 30, Illinois.



Plastic Serving Dishes S&CM-441M
The 15-ounce nappy and 5-ounce sauce or vegetable dish shown above have recently been added to the line of Restraware tableware. The new items bring to 15 the number of pieces of this heavy-duty Melmac dinnerware.

Advantages of Restraware include extreme resistance to breakage, light weight, quietness, and ease of handling and washing. It is available in pastel blue, coral, yellow, and tan, and in several decorator colors. . . . Use the Inquiry Card or write to Keystone Brass Works, Applied Plastics Division, Dept. S&CM-441M, Erie, Pennsylvania.

Quantity Recipe Cards S&CM-442M
If your cafeteria is using substitute protein dishes and cheaper cuts of meat, you'll be particularly interested in these quantity recipe cards. They tell how to use Kitchen Bouquet to give the foods rich, brown color and stepped-up flavor.

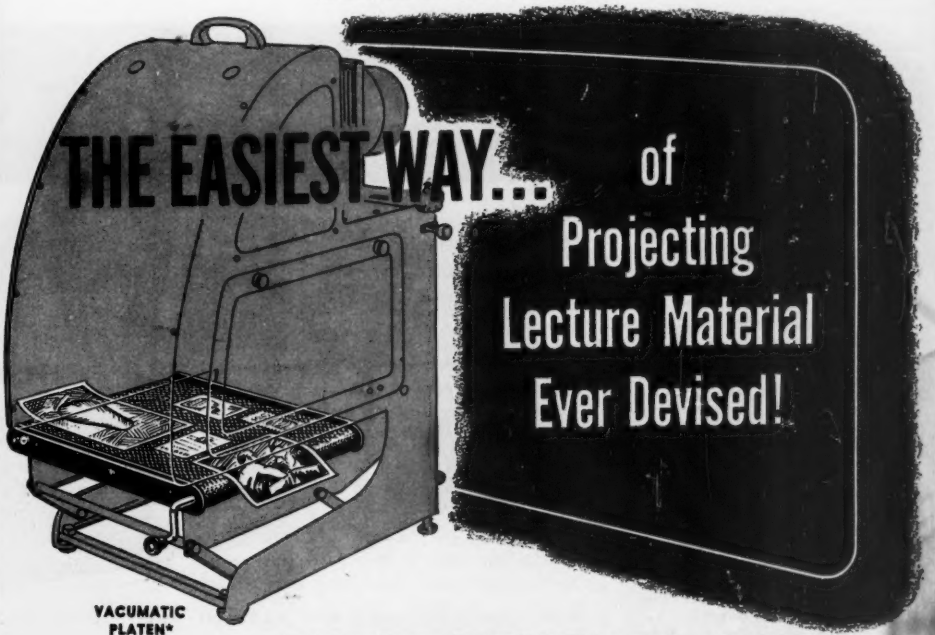
The recipe for Kitchen Bouquet Brown Roux offers a simple way to make rich brown gravy. The recipe for Kitchen Bouquet Butter Sauce works equally well with margarine. Other recipes utilize this sauce for browning meats, fish, and poultry, and for adding interest to vegetable casseroles, cheese dishes, and specialty meats. . . . Use the Inquiry Card or write to Grocery Store Products Sales Company, Inc. Dept. S&CM-442M, 480 Lexington Ave. New York 17, New York.

Single-Service Juices S&CM-443M
Nine refreshing and nutritional fruit juices can be offered to your students in individual, 5½-ounce cans. The H. J. Heinz Company offers pineapple, grape, tomato, orange, grapefruit, orange and grapefruit, apple, prune, and apricot flavors in single-service units. They can be used either on your counter at lunch time, or for mid-morning nourishment. Their attractive packaging will help sell them.

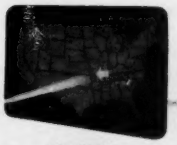
Cafeteria managers will find that individual cans avoid waste because they can be opened one by one as they are purchased. Their food cost is easily computed. They are sanitary, too. Just punch a hole in the top of the tin and insert a drinking straw. . . . Use the Inquiry Card or write to H. J. Heinz Company, Dept. S&CM-443M, 1062 Progress St. Pittsburgh 30, Pennsylvania.

TOMMY came to school loaded with bubble gum which he passed out to classmates and a surprised teacher, saying, "I just became a brother last night."

For more facts use Inquiry Card. S&CM-15M



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Beseler's revolutionary FEED-O-MATIC* feature on the new VU-LYTE Opaque Projector permits continuous, smooth projection of mounted or unmounted material.

Think of it! You simply feed your lecture material *as is* onto the metal conveyor belt of the FEED-O-MATIC, and advance it into projection position by turning a handle. There is no special need to mount copy, or insert it into holders—because the unique platen of this ultra-modern projector holds *all* copy material *absolutely flat.*

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The FEED-O-MATIC CONVEYOR is one of the exclusive Beseler developments that make the VU-LYTE the easiest opaque projector in the world to use—ideal for schools, churches, clubs, and business. And there are many other outstanding VU-LYTE features that team to help you obtain peak performance with maximum ease.

1. YOU CAN use the VU-LYTE in a partially-lighted room. Total darkness is not necessary in order to obtain clear, sharp images and brilliant colors—because VU-LYTE provides extra illumination.

2. YOU CAN use copy "as is"—without mounting or inserting into holders. The unique Beseler VACUMATIC PLATEN* holds all copy absolutely flat during projection. A full 8½x11 page letter or a postage stamp can be projected with equal ease, without curl or flutter.

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*Pat. Pend.

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U. of Michigan Laboratory Proves that Daylight Control Is Now Possible

HOW to control daylight and how to minimize glare and extreme contrasts with their resultant eyestrain and postural deficiencies have long been a challenge in the designing of school classrooms. Seemingly the problem has been solved in the laboratory of the Engineering Research Institute at the University of Michigan. The result of 10 years of study and development work by Dr. R. A. Boyd, research physicist, and his associates was recently announced. It graphically demonstrates how scientific research can be applied by modern industry to the development of new and better products.

The principal purpose of this laboratory was the study of light-diffusing and light-directing glass block in the field of fenestration, under the sponsorship of American Structural Products Co., a subsidiary of Owens-Illinois Glass Co. (See page 34 for review of new booklet describing the laboratory and its experiments.)

One example of design development resulting from this research work is a new type of light-directing glass block, Insulux prismatic glass block No. 363. This transmits more daylight and diffuses it more uniformly to all portions of a room —principally the front and rear walls.

The prisms on the interior faces of the block were redesigned. The major portion of light is directed upward. "Azimuth-correcting" ribs were added on the exterior faces. These ribs accept more light even when the sun is at an angle normally considered unfavorable for adequate room daylighting, and spread the increased amount of daylight sidewise to provide more uniform natural illumination.

Despite this increase in transmitted daylight the new block offers less surface glare when viewed from normal eye level.

While the initial cost is slightly higher than most conventional window systems, the drastic reduction in maintenance, repair, and fuel costs quickly makes up the difference.

The Detroit Board of Education estimated a fuel saving of 7 cents a square foot of window area per heating season with the new fenestration—and this was based on coal costs of $10 per ton.

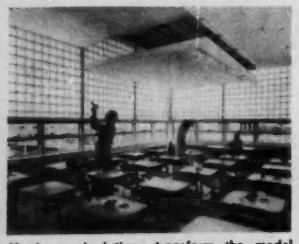
At the University laboratory tests of this new prismatic glass block are conducted with both artificial and natural light. An artificial "sun," with remote push-button controls, can be made to rise or set and follow an orbit for any geographical location in any season. This permits accurate measurement of light transmitted through a specimen glass block without the delay or travel required when natural light is used as a test source.

An artificial sky, composed of a hemisphere-shaped cubicle with a wall aperture to hold the glass block, is also used in the laboratory experiments. Designed to represent typical overcast sky conditions, it is painted grey on the outer edges of the hemisphere, the color graduating to a special white in the upper portion. Illumination is provided by a 5,000-watt incandescent lamp. Taking "sky" measurements requires a large sphere in which light is integrated for accurate reading by a photocell device inside.

In addition to these scientific devices at the University penthouse laboratory



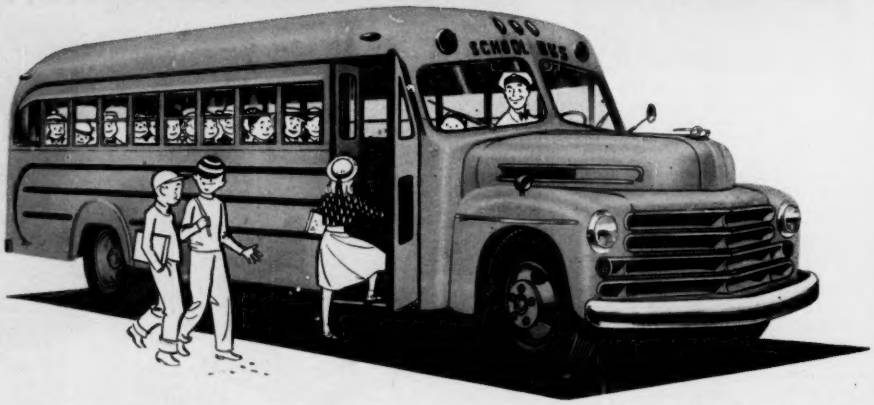
"Sky," a hemisphere-shaped cubicle with wall aperture (left) to hold glass block.



Magic manipulations transform the model classroom. With false wall on west exposure removed, the room now has two daylight sources; one of the four ceiling sections has been lowered two feet below the 12-foot level of the other sections.

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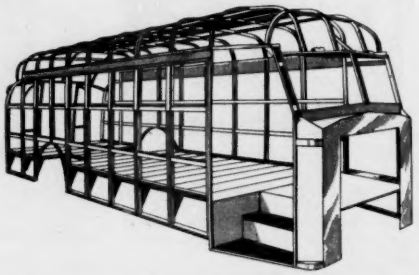
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there is a model classroom. It has an adjustable ceiling and movable walls so that the properties of glass block fenestration can be studied under actual classroom daylight conditions.

This model room, measuring 32 by 24 feet, can be used to test a variety of rooms for any type of building. It is constructed with a sectional celing which can be adjusted by winches to ceiling heights of from 10 to 15 feet or arranged to simulate a variety of stepped or sloping ceilings. (See illustration.)

Fenestration has been installed on two exposures—south and west—and a sectional masking wall which can be moved easily to block off either of these fenestrations when the problem has to do with a single daylight source. And because at certain hours daylight from these two directions corresponds to that from north and east, daylight performance from all points of the compass can be appraised accurately.

Thus this room, by comparatively simple adjustments, provides a working model to test brightness contrasts and uniformity of natural lighting in all types of modern school classrooms.

Walls, floors, and furnishings are in light colors or finishes to reflect, not absorb, daylight distributed via the ceiling from fenestration of glass block and clear sash on the south and west walls. The chalkboard is an eye-comforting green, to augment reflectivity.

In computing true light values in this classroom, a series of photocell devices is employed to evaluate results properly. These include an exterior light meter to check sun and sky conditions, a direct-reading brightness meter (developed in the laboratory) to measure the brightness of the prismatic glass block panels, and a reflectometer (another laboratory product) which appraises the amount of light reflected from wall and work surfaces to check brightness contrasts.

Research at the Institute has also contributed valuable data concerning window arrangement and materials, reflectivity values of various color schemes, and the transmission of daylight under various room and weather conditions.

Inquiry Card. S&CM-16M

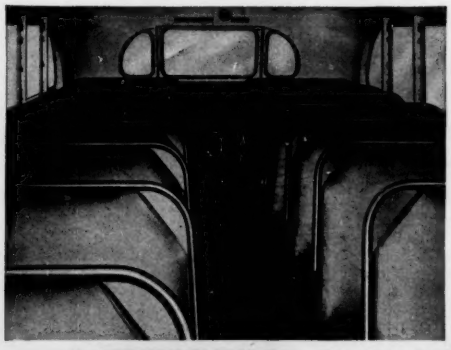
WAY IN SCHOOL BUS SAFETY!

A masterpiece of precision engineering—the All-Steel Oneida Body has Flexi-Joint construction with 4 point suspension for mounting. This exclusive Oneida feature of design provides a "go with the blow"—compensating factor in joint and assembly construction that overcomes road shock, stresses, strains and torsional twists.

A universal, streamlined cowl—lustrous, durable finish—heavy insulation—sturdy, interlocked roof, platform and body panel assembly—combine to make Oneida a body of unusual beauty and dependability.

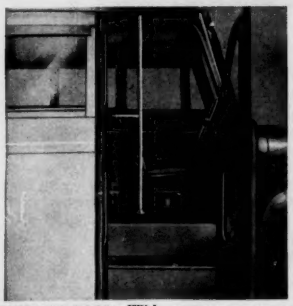
In the event of unforeseen damage, Oneida's unique construction features and interchangeable parts allow quick, easy repairs with a minimum of "out-of-service" time.

The extra-rugged Oneida Body is built to stand up under the hard daily grind over paved or rough roads. With every feature a safety feature Oneida challenges the consideration of school boards everywhere.



ROOMY, COMFORTABLE INTERIOR

Seat arrangements and window openings meet individual state requirements. Wide aisles and full 70" headroom allow rapid, unimpeded loading and unloading. All seats have web-type handholds to prevent accidents. Heavy, non-skid, ribbed aisle linoleum is an added safety factor. Continuous circulation of fresh air is maintained through roof ventilators. Air flow may be regulated by manually-operated grilles located in ceiling.



ENTRANCE DOOR • Wide, two-step entrance permits easy loading and unloading of students. Vertical edges of doors have soft rubber seals to protect children's fingers. A metal courtesy guard is between entrance well and right front seat.



DRIVER'S SEAT • It is adjustable up and down, backward and forward, to allow the individual driver easy reach of all controls. The *deluxe* swivel seat, which provides easy entrance and exit, is designed to combine safety with comfort.



LEFT REAR EMERGENCY DOOR (optional equipment) • This type emergency exit door is located in the left rear quarter of the body and permits a rear seat across the full width of the body. This door is equipped with a three-point safety releasing mechanism.

BUY ONEIDA

America's Finest School Bus Body

TRADE MARK Oneida SAFETY-SCHOOL-BUS BODY

CLIP AND MAIL TODAY

SCHOOL BUS SALES DIVISION
Oneida Products Corporation, Canastota, N. Y.

Gentlemen:

Please send me complete information and specifications on Oneida Safety School Bus Bodies.

Name_____

Address_____

City_____ Zone____ State_____

School District_____

How to Resurface Your Old Blackboards

SCHOOL custodians can obtain highly satisfactory results in blackboard resurfacing, reports John A. Thatcher, school engineer of Floral Park, New York. In a recent issue of *School Business Affairs*, he outlines the following procedures for doing a good job.

1. Obtain an efficient sanding machine of the reciprocating, not belt, type. This is important to the custodian, since an inexperienced man can do a fine grinding job on such a machine without danger of gouging the surface.

2. Obtain "wet-or-dry" garnet sandpaper, which comes in many degrees of fineness. Most successful for the first operation are No. 180 grit for badly pitted boards and No. 240 for other boards. No. 320 grit is used for the finish sanding.

3. Obtain water-soluble blackboard dye. There are a number of these dyes on the market. Equip the operator with a medium-size sponge.

Six Steps

Here are the actual steps in the operation.

1. Place a drop cloth on the floor under the blackboard area.

2. Mix blackboard dye: one part dye to four parts water. Attach sheet of garnet paper to sander, cut to fit.

3. Thoroughly sponge an area of eight square feet of the blackboard with dye.

4. Grind the surface, using a clockwise swing of the machine, staying in the wetted area and keeping it wet while grinding. The dyed water reduces friction while grinding and also colors the slate. Really bad boards require only minutes of grinding, and one sheet is enough for an area of about 12 square feet before it is necessary to change.

5. Wipe the board when the first grinding is completed and proceed with the fine grinding, using No. 320 paper and keeping the area well wetted as before.

6. Sponge the board with a darker or blacker mixture of dye and water as a final washing. After the board dries overnight, it is ready for use.

Two men can do a better and faster job, one wetting ahead of the grinding operator and also sponging behind his operation. They can also spell each other at grinding.

Nature deposits small stones in slate formations, and sometimes these stones show up in grinding and surfacing operations. Nature is at fault and there is nothing that can be done to improve them, according to Mr. Thatcher. Just forget they are there.

FOR the first time in many years kindergartens have become a part of the Melrose, Massachusetts, system. Nine kindergartens with a total enrollment of 375 were opened last fall. The pupils are divided into morning and afternoon groups . . . *NESDEC News*

Check List of

SUPPLIES AND EQUIPMENT

NEW PRODUCTS
and news about established products
presenting the claims
made for them by their manufacturers

Consult the Product Information Page opposite. Send the Inquiry Card for further information. No charge, no obligation.



Schoolroom Murals S&CM-423M
Attractive, instructive Foto Murals are now available for schoolrooms at a cost schools can afford to pay. They measure 7 feet 6 inches in height by 15 feet in length. The 15-foot proportion can be reduced by omitting end panels. Murals are washable, nonshrinkable, and have excellent adhesive qualities for mounting.

Shown at left is the full wall map Aerial Pictorial, U.S.A., No. 105A. This topographic map shows approximately 2,000 cities, 600 rivers and tributaries, and lakes, reservoirs, national parks, mountain ranges and peaks. Eighteen additional aerial views of outstanding points of interest are provided with this mural and can be appliquéd into position after it is hung on the wall. . . . Use the Inquiry Card or write to Foto Murals of California, Dept. S&CM-423M, 672 S. Lafayette Park Place, Los Angeles, California.

Auditorium Chair S&CM-421M
If you want an auditorium chair that will withstand hard use and years of wear, consider the new Griggs Starliner Model 34. It has a low sweeping back to protect the seat from student scuffing. The sturdily built standards, steel back, and steel bottom provide strength and durability. A large resilient seat cushion and a padded, curved back assure comfort. The self-rising seat permits speedy exit from auditorium and makes it easy to clean under the chair. . . . Use the Inquiry Card or write to Griggs Equipment Company, Dept. S&CM-421M, Belton, Texas.

Plastic Book Covers S&CM-434M
High-school student councils that need to raise money will want to know about Holden Superfine flat fit book covers specially designed for high schools, private schools, and colleges. They are available in quantity with the school name, insignia, nickname, and colors. Composition is of durable, washable laminated plastic. . . . Use the Inquiry Card or write to Holden Patent Book Cover Company, Dept. S&CM-434M, Springfield, Massachusetts.



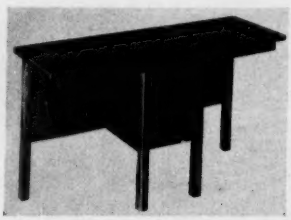
Waterproofing Sealant S&CM-407M
Waterproofing problems for all types of construction, exterior and interior, can be solved with use of Lipton all-seal waterproofing. It also retards weathering effects, and helps keep surfaces clean. It discourages termites, dry rot, and condensation. Its use is advised on such diverse materials as concrete, brick, plaster, stucco, cement, tile, canvas, wood, shingles, and many other surfaces.

This transparent sealing material forms a tight insulation unaffected by extreme heat, cold, and other climatic conditions. It is economical, since one gallon will cover from 200 to 350 square feet. The illustration above shows a cement block, brick, and shingle, each with a portion treated with this sealant. Treated sections have not absorbed water, while water has been absorbed into untreated areas. . . . Use the Inquiry Card or write to Progressive Enterprises, Dept. S&CM-407M, 1001 N. Vermont Ave. Los Angeles 27, California.



Bus for Handicapped S&CM-416M
If your school system transports handicapped children, consider the new Cub Paraplegic Carrier. It will make transportation safer and more comfortable for them. The bus has its own self-contained boarding ramp concealed by an extra-large boarding door when not in use. Operation requires only two-finger pressure. Interior of the bus, with removable seats and arrangements for latching wheel chairs to floor, is easily adapted to specific needs. There are 3 emergency exits.

This easy-riding bus is economical in cost, and in gasoline and oil consumption. It utilizes standard parts. The maker claims that the rugged steel-welded frame will assure lifetime freedom from body repairs, barring collisions. . . . Use the Inquiry Card or write to Cub Industries, Inc. Dept. S&CM-416M, White Pigeon, Michigan.



New Desk S&CM-408M
Economical of space and flexible in usage is the new Duo-Seating Desk, No. 222 for two students. It measures just 52 inches in width and 18 inches in depth. The inexpensive desk has two handy shelfs and a drawer, located conveniently for both students. It is available in 3 heights and several finishes. . . . Use the Inquiry Card or write to Crown Institutional Equipment Company, Dept. S&CM-408M, 218 S. Wabash Ave. Chicago 4, Illinois. *(Turn to page 22)*

For more facts use Inquiry Card. S&CM-17M

GET THOSE WEED ROOTS!
GO TO THE ROOT OF YOUR WEED PROBLEM WITH THESE DOLGE PRODUCTS



DOLGE SS WEED KILLER

Where no vegetation whatever is desired such as your parking places, walks and tennis courts. Penetrates deep down to plant roots and *kills*. Sterilizes the soil, preventing normal sprouting of wind-blown seeds. Weeding the thorough modern *chemical* way eliminates back-breaking toil and saves the cost of many labor-hours.

E. W. T. *SELECTIVE* WEED KILLER (2-4-D)

The *efficient* way to control weeds on your fairways. Works its way down into the roots of brush, dandelion, plantain, poison ivy, ragweed, sumac and other obnoxious plants, *but does not injure most turf grasses.*

Please write for descriptive literature explaining how these tested DOLGE products can best be used for *your weeding requirements.*

dependable DOLGE
WESTPORT, CONNECTICUT

For more facts use Inquiry Card. S&CM-18M

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THE WORLD'S OLDEST AND LARGEST THEATRICAL FABRIC ORGANIZATION • ESTABLISHED 1842
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AUDITORIUM DECORATION
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LOS ANGELES: 731 So. Hope Street
WRITE FOR FREE BOOKLET "WHAT FABRICS CAN DO FOR YOUR SHOW"

For more facts use Inquiry Card. S&CM-19M

Finest Quality Brushes ARTISTS' MATERIAL Colors
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Write For Free Price List

For more facts use Inquiry Card. S&CM-20M

Planning a curriculum?

get the new SVE catalog

For the latest news on educational filmstrips, 2x2 slides and projection equipment, send for the new SVE catalog.

Now is the time to plan how SVE can help you with next year's curriculum



The new catalog contains complete listings of recently released filmstrips, 2 x 2 slides and Slide-sets on: Literature and Language Arts, Social Studies, Sciences, Mathematics, Health and Physical Education, Vocations, and Fine Arts.

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with its improved optical system that gives even, brighter, sharper pictures.

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City.....State.....

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A Business Corporation
1345 Diversey Parkway, Chicago, Illinois

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Use the Inquiry Card to obtain
FURTHER DETAILS
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411M—Dremel jig saw
403M—Duane water repellent
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435M—Gel-Sten spirit workbooks
402M—General Binding binding equipment
417M—General Lamps lamps
421M—Griggs auditorium chair
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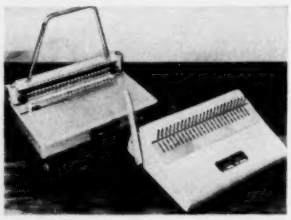
Sound Consolette **S&CM-405M**

Schools can use the new dual-channel consolette, RCA Type MI-12781, for a variety of instructive, recreational, communication, and administrative control purposes. Designed for medium sized sound systems, the consolette will provide recorded, radio, or locally originated sound programs and announcements to as many as 40 rooms or selected areas. Its two complete audio channels may be used to provide different programs to selected areas, or the same program to all areas. A master emergency switch will throw all areas into instant contact when that is needed for making emergency announcements.

Controls include means for mixing and controlling 10 inputs from microphones, radio, phonograph, or remote telephone lines, and a talk-back loud speaker with "talk-listen" switch. The unit has two 30-watt amplifiers. Addition of an optional amplifier permits it to be used as a two-way communication system without disturbing the two program channels. . . . Use the Inquiry Card or write to Radio Corporation of America, Sound Products Section, Dept. S&CM-405M, Camden, New Jersey.

Folding Armchair **S&CM-415M**

Useful in colleges and in teachers rooms, lounges, and cafeterias is the new Samson 2400 Series all-metal folding armchair. This Russel Wright designed chair has an extra large curved seat and posture curved back rest that assure comfort. The wide armrests fold automatically to vertical position. Rust-protected chair has a baked enamel finish available in attractive colors. . . . Use the Inquiry Card or write to Shwayder Bros. Inc. Dept. S&CM-415M, Detroit 29, Michigan.



Binding Equipment **S&CM-402M**

Schools, libraries, and offices can use the low-cost portable GBC Model-12 plastic binding equipment for fast binding of books, loose papers, and printed or duplicated material of all sizes. The maker claims this new model enables users to cut binding costs more than 50 percent over many fastener-type methods. Attendance records, workbooks, lab manuals, reports, theses, term papers, study guides, annuals, art work, and photographs are some of the materials for which it is useful.

The plastic bindings make attractive booklets which open and stay flat. New pages can be added to them with ease. The durable, precision equipment consists of two units—a punch and a binder. Student, teacher, or office employee can operate them easily and quickly. . . . Use the Inquiry Card or write to General Binding Corporation, Dept. S&CM-402M, 816 W. Belmont Ave. Chicago 14, Illinois.

New Cleaning Cloth **S&CM-426M**

All types of cleaning jobs can be made easier by use of the new lint-free cleaning cloth called Nun-Lint. It is excellent for dusting, polishing, and dishwashing. This long-lasting cloth is composed of cotton fibers coated and bound by plastic. It is soft, easy to use, and does not retain odors. It can be cleaned by soaking in sudsy water. . . . Use the Inquiry Card or write to Rittenbaum Brothers, Dept. S&CM-426M, 691 Houston St. N. E. Atlanta, Georgia.

For more facts use Inquiry Card. S&CM-21M



Master PADLOCKS

No. 1525 The finest in key-controlled padlock protection. Thousands of combinations protect the student — yet only one school-owned Master Key opens every locker. Precision built for long life, trouble-free service. Priced to fit school budgets.

No. 1500 Same as No. 1525, but without key control. Long time school favorite — in the bargain-price bracket.

Compare QUALITY!
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Write today to Dept. 10

Also makers of world famous MASTER LAMINATED Padlocks
Strongest construction known. Unbeatable protection for lab equipment, storage rooms, gates, athletic lockers, bank stores, etc.

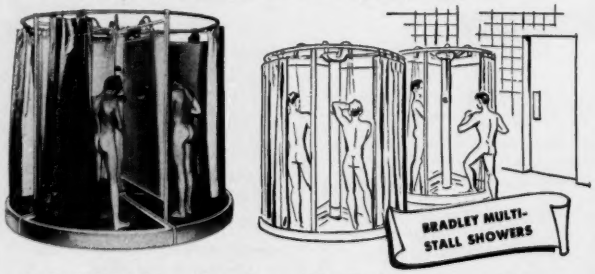
Master Lock Company, Milwaukee 45, Wis. • *World's Leading Padlock Manufacturers*

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BRADLEY SERVES EVERY WASHING NEED



For the main washrooms Bradley Circular Washfountains provide modern, sanitary washing convenience. One 54-in. Bradley serves 8 to 10 students simultaneously with an ever-clean spray of running water. Foot-control saves hands from contagious washbasin contacts. Sprayhead eliminates many faucets and cuts water consumption 70% to 80%.



Bradley Multi-Stall Showers offer maximum sanitation. They have no corners or dark areas to collect dirt, and require a minimum of attention. Bradley Showers come partially assembled for quick installation on any kind of floor including wood. Available in 5- or 3-Stall Units, they reduce piping connections needed, cut hot water costs and reduce water consumption.

Distributed Through Plumbing Wholesalers

BRADLEY *washfountains* AND *multi-stall showers*

A guide to washroom arrangements — illustrated Booklet 4701 will be mailed on request.



BRADLEY WASHFOUNTAIN CO. • 2243 W. Michigan Street, Milwaukee 1, Wisconsin



Plastic Universe **S&CM-418M**
With the new transparent plastic Celestarium it's easy for students and teachers to study the heavenly bodies in relation to the earth. It is so simple to operate and understand that students alone can manipulate it to show celestial phenomena.

The unit has a celestial globe with sun pointer, a terrestial globe, an horizon ring, a meridian ring, and an equatorial time ring. Names of the stars and constellations are printed clearly on the globe. By marking the various planets with grease pencil on the ecliptic circle, the unit can be used as a planetarium. Mounting can be either from a stand as shown above, or suspended from the ceiling, where pulley type hangers can be used to raise it out of the way when not in use. . . . Use the Inquiry Card or write to Farquhar Transparent Globes, Dept. S&CM-418M, 3727 Spruce St. Philadelphia 4, Pennsylvania.



Self-Cleaning Rake **S&CM-430M**
The time and labor involved in stooping to clean a rake can be eliminated by use of the new Self-Kleen rake. Note its simple spring construction. With a slight forward pressure on the handle, any substance can be removed from the teeth of the rake. This automatic cleaning feature also makes the area beneath brush and around delicate plants easily accessible.

The 20-inch-wide rake is made of rustproof, heavy-gauge steel. Its metal working parts are unconditionally guaranteed . . . . Use the Inquiry Card or write to Arthur Paul Sales, P. O. Box 495, Green Bay, Wisconsin.



Portable Safety Ladder **S&CM-406M**
Custodians will find the new Model "F" Porta-Step safe, sturdy, and convenient to use. This portable safety ladder comes in 3 widths, and in heights that range from 5 to 10 feet to the standing platform. Its upper loading platform can be dropped down against the frame of ladder when not in use.

Steps have carborundum safety treads. Safety guard rails may be added to each side of the steps at a slight additional cost. All casters are of the heavy-duty, rubber tired type, and the front ones are spring loaded. The unit is available in either all steel or all aluminum, electrically welded. . . . Use the Inquiry Card or write to Jaydee Manufacturing Company, Dept. S&CM-406M, Dayton 5, Ohio.

Spirit Workbooks **S&CM-435M**
Helpful material to supplement the busy teacher's standard texts is available in Gel-Sten spirit (liquid process) workbooks. They provide additional help for slow pupils and extra activities for advanced ones. There are 12 to choose from, including subjects such as kindergarten fun, reading seatwork exercises, fun with numbers, and outline maps. Each of these workbooks has 32 full-page spirit carbon masters ready to reproduce good bright copies on any liquid duplicator. . . . Use the Inquiry Card or write to Gel-Sten Supply Company, Inc. 9014 Brookfield Ave. Brookfield, Illinois.

Air Conditioning Units **S&CM-432M**
The 1951 line of Carrier air conditioning

For more facts use Inquiry Card. S&CM-23M



TRIP-L-SAFE **Pioneers win national acclaim as major step in pupil transportation**

Safety-minded school officials from coast to coast have enthusiastically acclaimed Superior's new TRIP-L-SAFE Pioneer School Coaches as a major step in better pupil transportation . . . and have proved their sincerity by making them first choice over all others for their children's protection.

Three exclusive new "safety firsts"—*Super-Guard* Frame, *Safe-T-Shield* Paneling, and *Unibilt* Body—provide the greatest advancements in school bus safety since Superior introduced the first "All-Steel" coach in 1931. More length, width, and headroom . . . increased visibility all around, including the largest windshield on any school bus . . . extra comfortable seats for passenger and driver . . . powerful new "Multi-Unit" heating system with positive defroster . . . these are but a few of the things you'll like about the Pioneers. Contact your Superior Distributor or use coupon to send for informative 12-page Pioneer Catalog now.

FOR SAFETY FIRST LOOK TO — Superior

I would like to know more about the Pioneers

☐ Please send colorful free 12-page catalog with complete information on new 1951 Superior Pioneer Custom and Master Custom models.

☐ Have a Superior Representative contact me to arrange for a demonstration, with the understanding there is no obligation on my part.

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SCHOOL_____

ADDRESS_____

PHONE NO._____ CITY_____

COUNTY_____ STATE_____

Mail this coupon to
SUPERIOR COACH CORPORATION, 15 Kibby Rd., Lima, Ohio

(Continued from page 23)

equipment includes many units for maintaining efficient working conditions in colleges and schools—units for classrooms, administrative offices, gymnasiums, and auditoriums. Among them are room air conditioners, window sill air conditioning units, and duct-type centrifugal units. Savings in scarce materials and increases in unit capacities of various models are expected to make it possible to keep the equipment available. . . . Use the Inquiry Card or write to Carrier Corporation, Dept. S&CM-432M, Syracuse 18, New York.

New Water Repellent **S&CM-403M**
An effective new silicone water repellent, Duane #923, will add years to the life of a building. It is excellent for protecting such surfaces as cement block, concrete, tapestry stone, brick, sandstone, limestone, terra cotta, stucco, plaster, and marble.

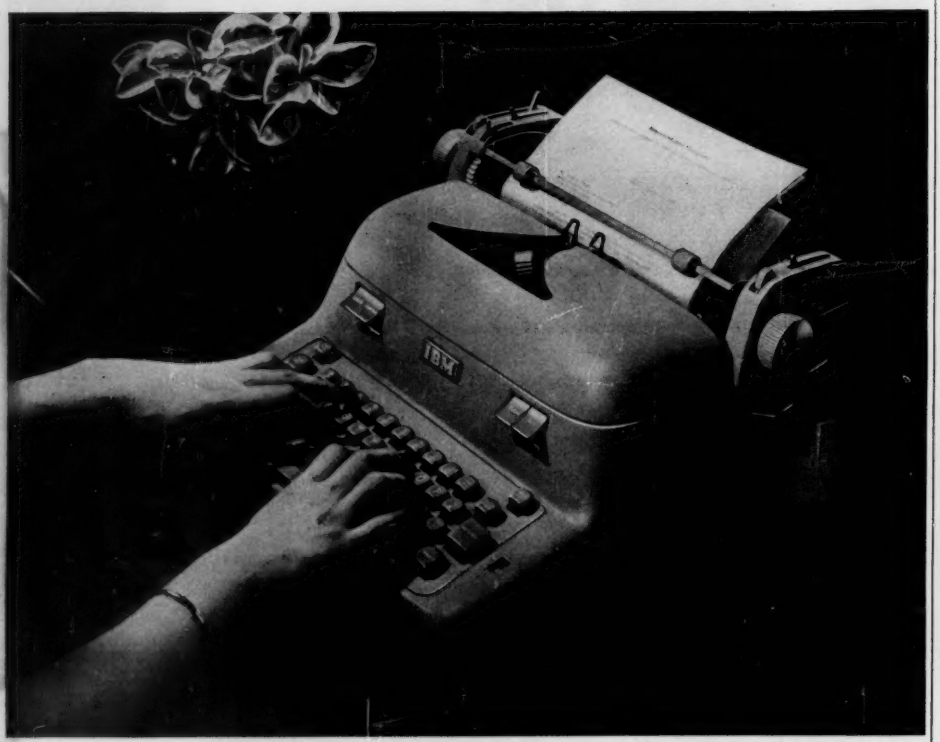
The liquid prevents passage of water or moisture through the pores of the materials. It also does away with deterioration of exterior surfaces from disintegration caused by successive freezing and thawing. When it is used, buildings will stay clean because dirt and grime are washed off with rain water. This colorless material can be applied by brush or spray gun. . . . Use the Inquiry Card or write to Duane Specialties, Ltd. Dept. S&CM-403M, 209 Parkhurst St. Newark 5, New Jersey.

SUPPLIES AND EQUIPMENT

Consult the SCHOOL AND COLLEGE MANAGEMENT *Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.*

For more facts use Inquiry Card. S&CM-24M

How to BUILD typing speed
TRAIN more accurate typists
in far less time



Classroom tests reveal why electric typewriters are fast becoming the foremost teaching tools today. Students' learning time is cut drastically; they develop speed and assurance early—are motivated for continued success.

Basic technique is developed and perfected without long practice on tedious drills. Hands are always in typing position on the keyboard, whether returning the carriage or typing. Type impression is perfect from the beginning.

Greater accuracy results from sustained typing rhythm. Electric typing requires no unnatural finger strokes. The free, easy gliding of fingers over keys develops the word-pattern habit—basis for continuing increases in speed.

IBM's 20 years of experience in the electric typing field are at your service—for a classroom demonstration or development of a training program based on the most modern teaching aids. Write to IBM, Dept.SH-3,590 Madison Ave., N. Y. 22, N. Y.

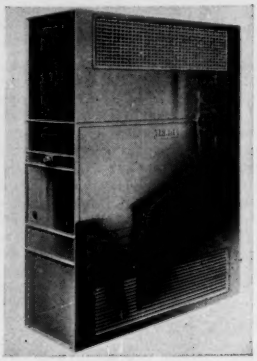
IBM Electric Typewriters

INTERNATIONAL BUSINESS MACHINES CORPORATION



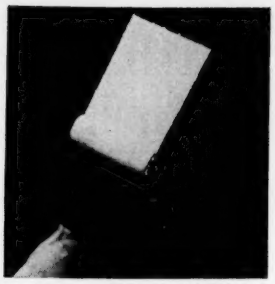
New Seating Unit **S&CM-425M**
The new Utilitarian desk will suit the needs of elementary schools, high schools, and colleges purchasing seating on a limited budget. It serves as a tablet arm chair or chair desk; but it offers a large 18 x 24-inch writing surface and is adaptable for both right and left-handed students. It can be had with or without a book shelf under the seat.

The unit has a full-size seat and comfortable bent back rail. It is made in three desk top and seat heights. Construction is of northern hard rock maple mounted on a strong tubular frame equipped with either nickel-plated or rubber cushion glides. . . . Use the Inquiry Card or write to Northern Seating Company, Dept. S&CM-425M, 666 Lake Shore Dr. Chicago 11, Illinois.



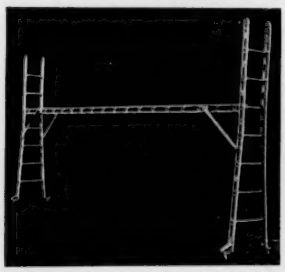
Volume Ventilator **S&CM-424M**
The new Trane Volume Ventilator is designed for use in gymnasiums, auditoriums, lunchrooms, and other large spaces requiring tempered ventilating because of high occupancy. This large capacity heating and ventilating unit brings in outdoor air and combines it with room air in a mixing box section. The mixture is filtered, drawn through the heating coil section for tempering to the required degree, and then distributed into the room area.

Ventilator is available in three basic types—floor (illustrated here), wall, and ceiling. It is easily installed and operates quietly. A variety of accessories and separate sections assure assembly of a unit designed to meet the needs of each particular installation. . . . Use the Inquiry Card or write to Trane Company, Dept. S&CM-424M, La Crosse, Wis.



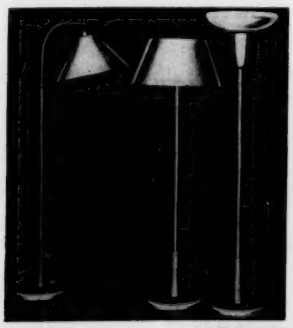
New Rubberized Paint **S&CM-438M**
A new, nonporous interior paint called Wallhide Rubberized Satin Finish is available in 12 colors. It combines the durability and washability of an enamel with the appearance and usefulness of a flat wall paint. The maker claims it resists wear like rubber. It does not shine when washed in local areas, and it will not scratch or chip.

Among its practical advantages are 1-hour drying time and lack of an objectionable odor either during or after application. Application is easy whether by brush, spray, or roller. No special primer is needed. The finish can be used on any wall or ceiling surface, including new or old plaster, paint, wallpaper, wallboard, brick, concrete, cinder block, wood, or primed metal. . . . Use the Inquiry Card or write to Pittsburgh Plate Glass Company, Dept. S&CM-438M, 632 Duquesne Way, Pittsburgh, Pennsylvania.



Rolling Platforms **S&CM-429M**
Maintenance men will find the new Louisville rolling scaffolds convenient for overhead work. They are simple to erect and they store compactly. Four-inch free-rolling casters with locking device give them excellent maneuverability.

These platforms are constructed of aluminum ladders and scaffolds. They come in two standard widths, 12 and 20 inches, and in lengths up to 24 feet. Maximum height is 20 feet. Special size units and hand rails may be ordered. . . . Use the Inquiry Card or write to Louisville Metal Products, Inc. Dept. S&CM-429M, 1101 W. Oak St. Louisville, Ky.



New Lamps **S&CM-417M**
The durable new Contempo lamps are excellent for dormitories, teachers rooms, lounges, and administrative offices. They have a safety feature that permits their tipping to an unusual degree without danger of falling. Shades are made of fiber-glass plastic that resists fire, can be washed with soap and water, and does not crack or peel. The platinum chrome, noncorroding, nontarnishing finish will withstand any climatic conditions. . . . Use the Inquiry Card or write to General Lamps Manufacturing Corporation, Dept. S&CM-417M, Elwood, Indiana.

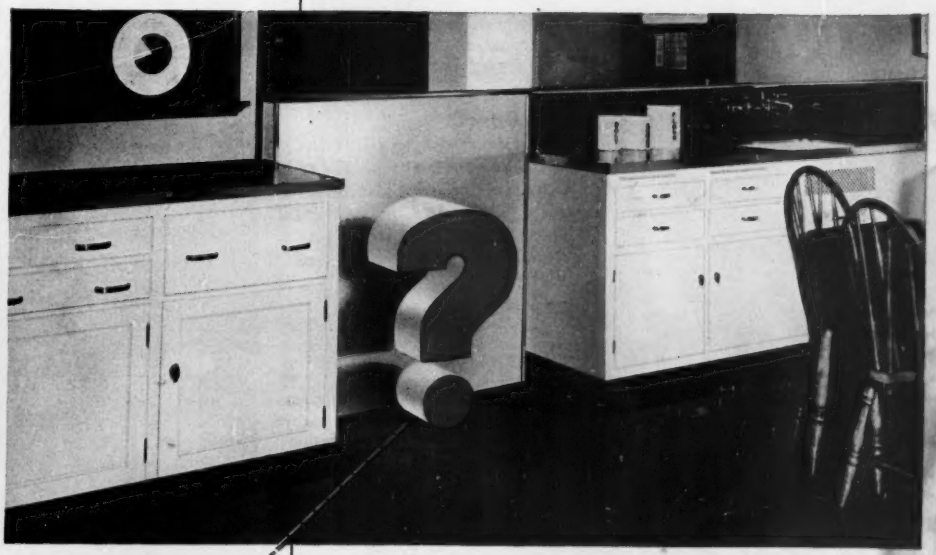
Sickle Bar Mower **S&CM-422M**
Maintenance men will appreciate the features of the new George sickle bar mower that are usually found only on higher priced units. The engine may be started without the sickle knife running. The mower may be driven forward without the knife running. Or the sickle knife may be run without having the traction drive engaged.

The vibration-free mower takes a 32-inch cut through grass or heaviest weeds. Weight is balanced so the unit stays down when cutting, yet glides easily for even close-clipped work. Heavy-duty tires and a 2-hp motor are other advantageous features of the machine. . . . Use the Inquiry Card or write to Community Industries Ass'n. George Tractor Division, Dept. S&CM-422M, 811 S. Hamilton St. Sullivan, Illinois.

Interlocking Files **S&CM-419M**
Rigid-Stak steel transfer files are easy

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*Source: "Magazine of Building"

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(Continued from page 25)

to lock together without use of tools. For permanent vertical locking to prevent tipping when drawers are opened, flanges on each file fit into each other. Proper alignment is assured by tapered lugs attached to the files. Special tie links and "T" slots can be used for side-to-side and back-to-back locking.

Units have drawer stops that are strong enough to hold loaded drawers in open, suspended position. They come in 16 standard sizes. . . . Use the Inquiry Card or write to Herring-Hall-Marvin Safe Company, Dept. S&CM-419M, Hamilton, Ohio.

Anatomy Charts **S&CM-431M**

Unusually attractive coloring and excellent 7-color reproduction contribute to the effectiveness of the Kampmeier-Larivière Anatomy Charts for high-school and college use. Their light blue background enhances detail and gives a pleasant appearance. Striking third dimensional effects convey the impression they are a representation of living structures.

The charts have a wealth of information presented with scientific accuracy. There are 10 in the set. Individual charts or different combinations are available with light-color wood fittings. . . . Use the Inquiry Card or write to Denoyer-Geppert Company, Dept. S&CM-431M, 5235 Ravenswood Ave. Chicago 40, Illinois.

SUPPLIES AND EQUIPMENT

Consult the SCHOOL AND COLLEGE MANAGEMENT *Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.*

For more facts use Inquiry Card. S&CM-26M



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"we SAVED 68% on man hours with Aluminum Alloy "UP-RIGHT" SCAFFOLDS

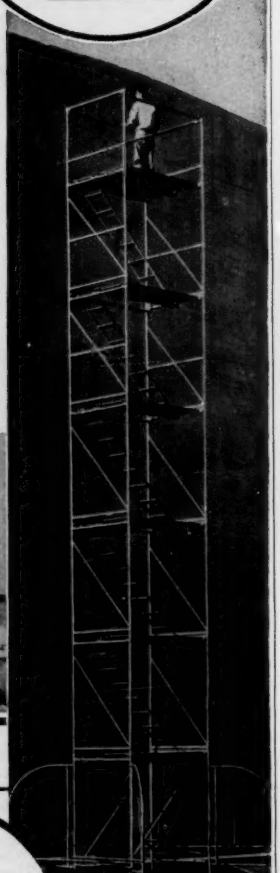
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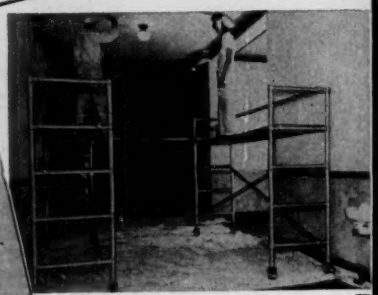
M. R. K. adds . . . (Name on request)
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School officials and maintenance superintendents report that *savings on even single installations or maintenance jobs more than pay for UP-RIGHT SCAFFOLDS!* Rolled easily from position to position. Stronger than structural steel yet one third the weight. No wrenches, wing nuts, bolts or loose parts.





STAIRWAYS are taken in stride by an Up-Right Scaffold. Legs are instantly adjustable for perfect levelling of platform.



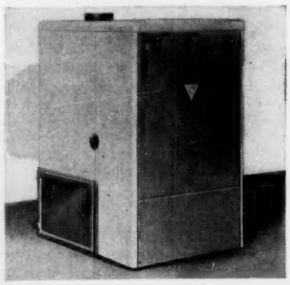
LARGE AREAS can be painted in far less time by bridging between 2 span-scaffolds and moving them simultaneously.

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up to 45 ft. or higher take only 1 to 15 minutes to erect. Available in desired number of 6 ft. section units.



New Furnace **S&CM-409M**

Schools that want dependable and economical heat from a coal-burning furnace should consider the new Axeman-Anderson Anthratube, Model 260-M. With it fuel savings of up to 50 percent are possible. Secret of its efficiency is in prevention of excess air from wastefully carrying heat out the chimney. The fuel bed is arranged so the coal is almost completely burned with absolute minimum of excess air. The unit is completely automatic, taking the coal from the bin, burning it, and shaking the ashes into a container or pit. It provides year round water. . . . Use the Inquiry Card or write to Axeman-Anderson Company, Dept. S&CM-409M, 233 West St. Williamsport 3, Pennsylvania.

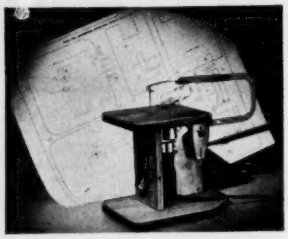


Table-Type Jig Saw **S&CM-411M**

A set of plans for converting the hand-held Dremel electric coping saw into a bench-type unit now comes with each saw. Set is also available separately. The template-style plans are easy to follow. They produce the sturdy, useful piece of equipment shown above. . . . Use the Inquiry Card or write to Dremel Manufacturing Company, Dept. S&CM-411M, Racine, Wisconsin.

MANUFACTURERS' LITERATURE

Consult the SCHOOL AND COLLEGE MANAGEMENT *Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.*

Lighting Equipment **S&CM-462M**

"Incandescent Unified Lighting." . . . Use the Inquiry Card or write to Art Metal Company, Dept. S&CM-462M, 1814 East 40 St. Cleveland 3, Ohio.

Equipment and Supplies **S&CM-467M**

"Office and Shop Supplies," catalog. . . . Use the Inquiry Card or write to Block and Company, Dept. S&CM-467M, 216 S. Wabash Ave. Chicago 4, Illinois.

Roofing and Flooring **S&CM-468M**
"POrete Lightweight Concrete Products," precast and poured in the field for roof and floor construction. . . . Use the Inquiry Card or write to Porete Manufacturing Company, Dept. S&CM-468M, Porete Ave. North Arlington, New Jersey.

School Seating **S&CM-461M**
"Virco Modern School Equipment," . . . . Use the Inquiry Card or write to Virco Manufacturing Corporation, Dept. S&CM-461M, P. O. Box 846, Station H, Los Angeles 44, California.

Aluminum Windows **S&CM-466M**
"Cupples 500-490-700 Aluminum Windows". . . . Use the Inquiry Card or write to Cupples Products Corporation, Dept. S&CM-466M, 2650 S. Hanley Rd. Maplewood, St. Louis 17, Missouri.

Exit Devices **S&CM-463M**
"Von Duprin Fire and Panic Exit Devices,". . . . Use the Inquiry Card or write to Vonnegut Hardware Company, Von Duprin Division, Dept. S&CM-463M, 402 W. Maryland St. Indianapolis 9, Indiana.

Disinfectants **S&CM-464M**
"Robbins Disinfectants," Catalog No. 50, includes extensive listings of cleaning equipment. . . . Use the Inquiry Card or write to Geo. B. Robbins Disinfectant Company, Dept. S&CM-464M, 42 Carleton St. Cambridge, Massachusetts.

Casters and Trucks **S&CM-469M**
"Flame-Hardened Rapistan Casters and Trucks," Catalog CT-50—A. . . . Use the Inquiry Card or write to Rapids-Standard Company, Inc. Dept. S&CM-469M, 342 Rapistan Building, Grand Rapids 2, Michigan.

Audio-Visual Equipment **S&CM-465M**
"Brumberger All-Steel Photographic Accessories". . . . Use the Inquiry Card or write to Brumberger Company, Inc. Dept. S&CM-465M, 34 Thirty-fourth St. Brooklyn 32, New York.

Lighting Fixture **S&CM-470M**
"A High-Efficiency Slim Line Fixture by Litecontrol For Classroom Lighting" . . . Use the Inquiry Card or write to Litecontrol Corporation, Dept. S&CM-470M, 36 Pleasant St. Watertown 72, Massachusetts.

TEACHING MATERIALS

Consult the SCHOOL AND COLLEGE MANAGEMENT *Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details.*

Craft Decoration **S&CM-481M**
"Decorate with Dek-All." Full color, 20 pages. 25¢.

Teachers and students in school and college art and home economics departments will be interested in this "what-to and how-to" booklet. It contains a galaxy of practical articles and examples of the diversified uses of Dek-All, versatile color medium for hand decoration of glass, china, pottery, and metals. Directions are easy to follow. A few minutes in a home oven will "set" colors. . . . Use the Inquiry Card or write to American Crayon Company, Dept. S&CM-481M, Sandusky, Ohio.

Use of Materials **S&CM-483M**
"Using Current Materials." 32 pages. Single copy, free.

Who should select current materials used in schools, what criteria should be used, how can such materials be more effective in classrooms, and how can the materials be procured? Questions such as these are discussed in this booklet, based on results of a study made by specialists in education at a special workshop. . . . Use the Inquiry Card or write to Junior Town Meeting League, Dept. S&CM-483M, 400 S. Front St. Columbus 15, Ohio.

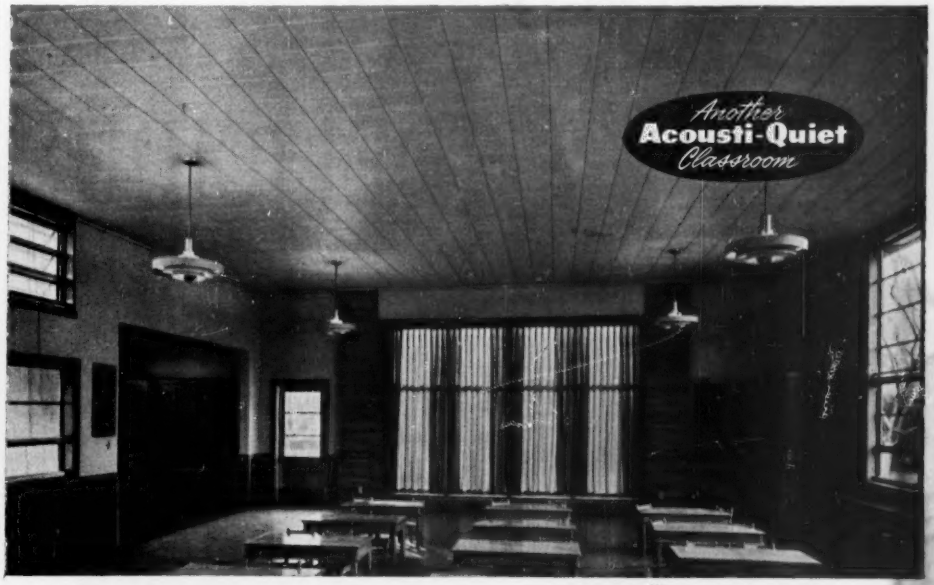
Clock Dial **S&CM-482M**
Clock Dial. 5 colors, 15 inches square. $2.

This easily read new clock dial with plastic hands will be of assistance in teaching children how to tell time. It has colorful pictures of Mother Goose characters around the perimeter to stimulate child interest. The durable dial is lithographed on a hard, smooth surfaced composition board. It may be cleaned easily with a damp cloth. . . . Use the Inquiry Card or write to Ideal School Supply Company, Dept. S&CM-482M, 8322 Birkhoff Ave. Chicago, Illinois.

Cereal Materials **S&CM-484M**
Booklets and charts on teaching cereal nutrition. Free.

Home economics teachers in particular will find these materials useful. The 1950 group includes illustrated teacher's source books, charts, and recipes, on the subjects of The Nutritional Contribution of Breakfast Cereals, How to Plan Better Breakfasts, Fifty Tested Cereal Recipes, and The History and Manufacture of Breakfast Cereals. . . . Use the Inquiry Card or write to Cereal Institute, Inc. Dept. S&CM-484M, 135 S. La Salle St. Chicago 3, Illinois.

For more facts use Inquiry Card. S&CM-27M



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Take twenty or thirty frisky, spirited youngsters. Put them in a classroom where poor acoustics cause the teacher's words to reverberate until they become all but unintelligible. Where everyday sounds pile up into a constant, distracting din that creates tension and strain. The natural, the almost inevitable result is . . . inattention! Even the brightest pupil finds concentration difficult. Minds wander. Studies suffer. Disciplinary problems multiply.

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You can put full confidence in your local distributor of Acousti-Celotex Products. He is a member of the world's most experienced Sound Conditioning organization. He has the broad training and experience—the job-proved methods—the complete line of top quality acoustical products necessary to meet every specification, every requirement, every building code!

FOR A FREE ANALYSIS of your Sound Conditioning problems, write for the name of your local Acousti-Celotex Distributor. We will also send you a free copy of the booklet, "Sound Conditioning for Schools and Colleges." The Celotex Corporation, Dept. K-51, 120 S. La Salle St., Chicago 3, Ill. In Canada: Dominion Sound Equipments, Ltd., Montreal, Que.

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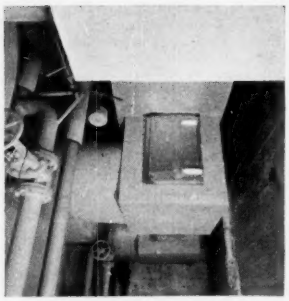
Career Guidance for High-School Pupils

THE Career Determination program used by Defiance College has been modified in the Dalton, Massachusetts, High School to help high-school students make wiser choices of careers. A recent issue of *Trends* describes how the plan works.

The program is centered on courses for juniors and seniors in career essentials and career selection and planning, which are given as credit subjects toward graduation. Students cover the major elements of all careers in relation to the individual's family, social, and community relationships. They learn about career requirements and chances for success.

The plan enlists the help of industry and business. Personnel managers of companies near the city and Rotary Club members discuss with classes the conditions and opportunities in their fields. Field trips to nearby plants are arranged. Students are also given aptitude tests for individual counseling.

The two-year plan was inaugurated to enable the graduate to make an inventory of his own assets and liabilities, to find out what career really interests him, and to match his personal qualifications with the requirements in his field of interest. It will also try to help the student get started in his career.



AN unusual "air gap" technique is used to simplify the insulation of high temperature air ducts for the school district of McKeesport, Pennsylvania. Since the gap between the duct and the mineral wool jacket insulation is dead air space, it adds to the thermal efficiency of the insulation and helps it do a better job of controlling heat losses.

The insulation is spaced 2 inches out from the duct, away from the interference of duct stiffeners. It is installed by wiring mineral wool blocks to expanded metal lath that is wired to angle-iron members running the length of the ducts. These members are welded to angle-iron stiffeners circumscribing the ducts. Heat leakage is prevented by covering the mineral wool blocks with a ¾-inch mineral wool cement coat trowelled into 1-inch wire mesh stretched over the blocks. Painted 10-ounce canvas is used to cover the cement to give the job a neat appearance.

HIGH school seniors in Dover, Delaware, really had a chance to learn about many colleges and universities recently. A state-wide college night was conducted with representatives from more than 100 institutions of higher education present. Pupils, parents, teachers, and high-school counselors came from all over the state.

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COOKING WITH MAGGI'S GRANULATED BOUILLON is such an easy, economical way to spark the flavor of everyday dishes. All you do is dissolve it in hot water or add it directly to the cooking water. Rich in beefy goodness, Maggi's Granulated Bouillon brings out the full, natural flavor of meats, soups, sauces and gravies. Use it whenever recipes call for beef stock. Serve it frequently as an instant-quick broth, too.

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For more facts use Inquiry Card, S&CM-29M

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A County Survey Reveals Many Visual Difficulties

By LESTER R. WHEELER
Director, Reading Clinic
University of Miami, Florida

THE child who struggles with eye-strain has one strike against him. School learning is largely built around visual tasks, and children who have difficulty seeing the printed symbols on chart, blackboard, or in books are definitely handicapped in learning to read, write, spell, and in making satisfactory progress with the other school subjects. While some children have enough tolerance to overcome handicaps and learn in spite of visual difficulties, there are many others who are unable to work day in and day out under such constant strain. These children develop into educational problems, their educational future is jeopardized, and their health and happiness in the future is threatened.

In Dade County, Florida, an attempt was made to discover and correct the visual difficulties that may retard the educational progress of many of the school children.

Test First Through Twelfth Grades

A visual survey was initiated there, sponsored, and largely financed by the Lions Clubs of Miami, in cooperation with the Dade County schools and the University of Miami Reading Clinic. More than 12,000 Betts' telebinocular visual tests were given from the first through the twelfth grades to locate pupils who need corrective measures or special instructional considerations.

All tests were scored "pass" or "failure" on the basis of items which materially affect school progress: near-sightedness, far-sightedness, lateral and vertical imbalance, fusion, visual efficiency, and visual acuity. All the "failures" were divided into "major failures" and "doubtful" cases. The parents of children with "major failures" were notified by the school principals and advised to have the child further examined by an eye specialist.

All the "doubtful" cases are under special observation by the classroom teachers who are checking them closely for symptoms of visual fatigue. Symptom check sheets for this purpose were furnished by the reading clinic. If these "doubtful" cases appear to develop fatigue and tensions while reading and doing other school tasks, the teacher will recommend further examination by an eye specialist.

32 Percent Had Defects

Results of the testing show that 32 percent of all the children tested were found to have either major or minor visual defects that might make their school tasks difficult for them. Two-thirds of these cases were serious enough for referral to an eye specialist, and the others are under observation by the classroom teachers.

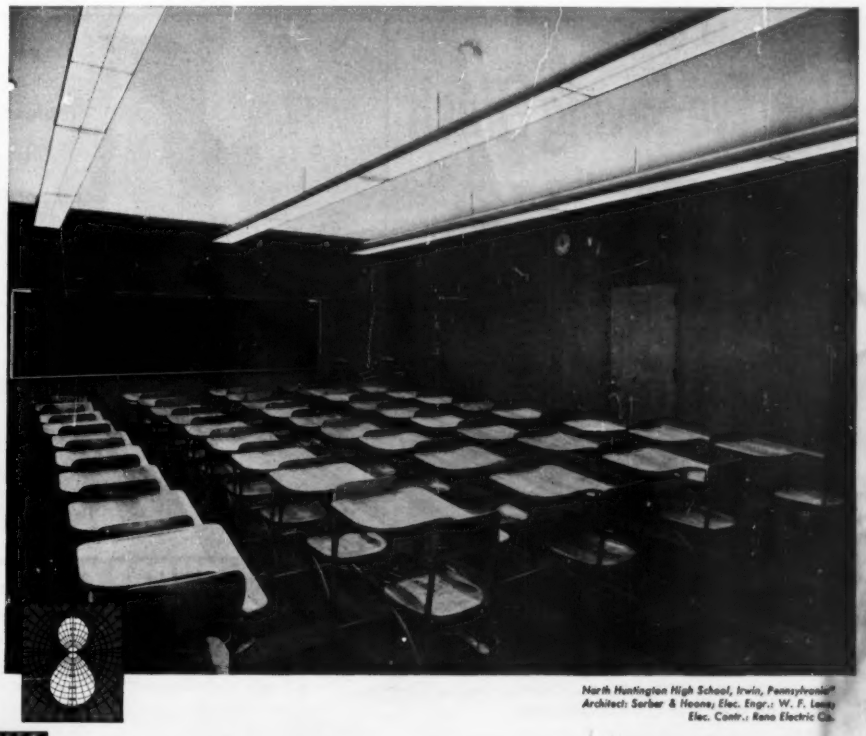
While the percentage of failures decreased with the increase of grade level (from 48 percent in the first grade to 31 percent in grades seven and eight, and to 25 percent in grade twelve) it is a startling fact that after 12 years of schooling, one-fourth of the high-school seniors have not had adequate attention given to their visual problems. Many of these students might have been materially relieved by earlier detection of visual difficulties. Undoubtedly visual correction in the earlier grades would appreciably influence the academic mortality rates among the upper levels.

A follow-up of the referred cases shows that, in the majority of cases, the eye specialists found the results of the screening test valid, and that most of the referred cases were very much in need of attention. Some of these proved to be sight-saving cases who needed, in addition to medical and corrective work, special materials and instruction in order for them to make satisfactory school progress.

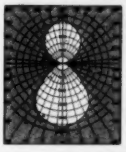
It would have been worth while, and money would have been well spent, if the vision and happy school life of only one child had been saved by the survey. However, the survey shows that 1,500 children have benefited from corrective and remedial treatment and that an equal number may have better vision in the future because of the classroom teachers who have been alerted to detect symptoms of visual difficulties. The survey has done a great deal to make the schools vision-conscious, and probably has helped to develop an interest in better vision throughout the community in general.

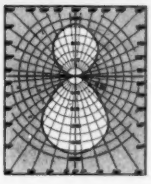
ST. John's College, Annapolis, Maryland, will admit women for the first time next September, according to a recent announcement. Entrance requirements will be the same for men and women, and women will study in the same seminars. The post of dean of women will be created, a dormitory will be converted, and eventually women may be added to the faculty with the title of tutor. September's freshman class is expected to have about 60 men, 50 women.

For more facts use Inquiry Card, S&CM-31M



North Huntington High School, Irwin, Pennsylvania*
Architect: Sarber & Hoone; Elec. Engr.: W. F. Lang
Elec. Contr.: Rano Electric Co.





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How One College Placement Office Functions

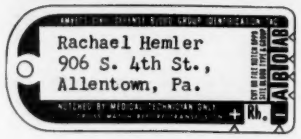
HOW the placement office of Brooklyn College operates is told in detail in its report. The work of placing students in suitable jobs is divided into three categories: recruitment, interviewing and referral of student applicants, and follow-up.

The director of placement contacts employers by letter and by telephone to tell them about, and remind them of, the services of the office. He also makes field trips to business concerns to learn about their employment needs. A faculty member on released time in the placement office works half time with the director in developing other contacts in the community.

As soon as a job order is obtained by the placement office, the second part of the process, interviewing and referring students, begins. After three or more students have been referred to an employer, a student aid telephones him to find out what disposition was made of the job.

If the job is still open, it is put on the active file again. An effort is made to discover why the employer did not hire any of the students referred to him. A placement counselor then checks with the students and tries to correct any errors they may have made.

Blood-typing Project



IN Allentown, Pennsylvania, 17,000 school children in public and parochial schools are having their blood typed as part of the civilian defense program. The blood type is recorded on a plastic identification tag issued by the local Amvets committee and given to each child.

Each child takes home a permission card to be signed. The card states that the signing parent or guardian wants to give his child a chance to survive in case of atomic bombing and therefore gives permission to have him blood-typed.

On the back of the card, the teacher fills in the name, address, telephone number, age, and sex of the child. Spaces for blood type and Rh factor are left blank until the typing is done. The identification tag carries the same information.

When the school is being blood-typed, the child brings his identification tag and permission. The permission card is kept and the tag is given to the child after it has been correctly notched.

In New York City, a similar plan to have metal identification tags issued to school children is under consideration by the board of education committee on civil defense. The board has already placed a $30,000 order for 50,000 pounds of nickel-silver alloy for the tags.

New York's superintendent of schools, Dr. William Jansen, has also sent a million copies of a letter to parents acquainting them with ways in which they can protect themselves and their children in the event of a bombing attack. Dr. Jansen in his letter, referring to the new type of air raid drill that soon will be practiced in the schools, urges parents to accept this new training their children will receive matter-of-factly.

REMEDIAL reading in club form has been introduced in the Cortland, New York, public schools. Backward readers may join the club, which meets for an hour once a week at the public library. It is under the supervision of the librarian and a senior seminar from Cortland State Teachers College. By this plan pupils spend the first half-hour reading books of their own choosing, and then have help from student teachers during the remainder of the meeting. . . .
New York State Education

For more facts use Inquiry Card. S&CM-32M

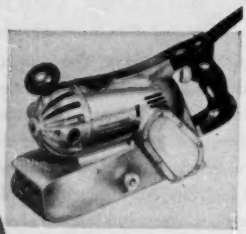
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New Eye-Saving Finish
this money-saving way

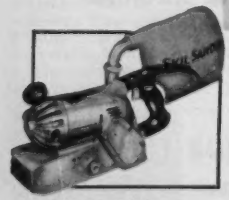


Vision is improved, comfort increased, when desk tops have non-glossy, natural wood finish. Lighting experts recommend the change. Contrast between work and work area is better balanced.

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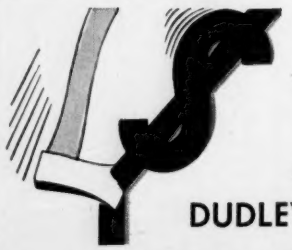


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Practical Methods Of Dealing with Book Vandalism

AN item in the January issue of SCHOOL AND COLLEGE MANAGEMENT asking for solutions to the problem of book vandalism in the public schools has elicited a number of answers. The methods of solving this ever-present problem vary: one system reports great success with a plastic mending liquid, while another school, where books are rented, relies on a receipt card which states the condition of the book when it is rented. One of the following methods, or a combination of all of them, may help solve your vandalism problem.

In the Garrett, Indiana, senior and junior high school, where textbooks are rented, the student receives the book and rental receipt from the teacher at the beginning of the term. The condition of the book is agreed upon by both the teacher and student and filled in on the receipt card as new, good, fair, or poor. Then the student signs the card.

Rental System Works

Two or three days before the course ends, the teacher checks the condition of the book against the condition on the receipt card. If the condition of the book has dropped more than one step, it is regarded as damaged. An assessment for damage, or for minor repairs, is made on the student, and it must be paid before grade cards can be issued. The book is repaired immediately, before the next student gets it.

This system, which depends on the cooperation of the teachers, both decreased book damages and saved the rental system from financial failure.

From the Clayton, New Jersey, public schools comes the suggestion that a plastic mending material in liquid form will help solve the vandalism problem. This plastic (name supplied on request to the editor), when dry, is elastic, yet tough as leather. Jars of the plastic are kept in several convenient places—the library, shop, high school and elementary school offices, as well as certain classrooms.

Pupils Repair Books

When a book is damaged, the pupil responsible for the book repairs it. He applies the plastic with a paint brush to the broken binding, torn page, or ripped cover, and secures it firmly with rubber bands or by pressing it under several other books. Wax paper inserts keep pages from sticking together during the drying process. Though the plastic drys in a few hours, an overnight drying period is usually allowed. The book is then almost as good as new, and in some cases much stronger.

Since the students do the repairs themselves, they learn the technique of repairing books, and they also learn the value of caring for books.

The Waltham, Massachusetts, senior high school employs a method similar to the one used in Garrett. At the end of each quarter of the school year the classroom teacher takes an inventory of each textbook, workbook, and other material that is issued to the pupils. Those which have been lost and those which have received unwarranted abuse must be paid for.

A new book that is lost or badly abused must be paid for in full. Older books cost the pupils less because allowance is made for their depreciation through normal use. Pupils are given a week to pay.

During the first year in which this system was inaugurated, a sizeable amount of money was collected, but it has materially decreased by this (the third) year. Pupils are far more careful with school property than ever before.

THE Curriculum Bulletin, a project of the School of Education of the University of Oregon, is once again being published and is available on a subscription basis at $5 per year for approximately 24 issues. Individual issues may be purchased. Each issue treats a separate topic, such as bibliographies, study guides, background and resource data on newer methods and curriculums, proposals for new curriculums, and similar subjects.

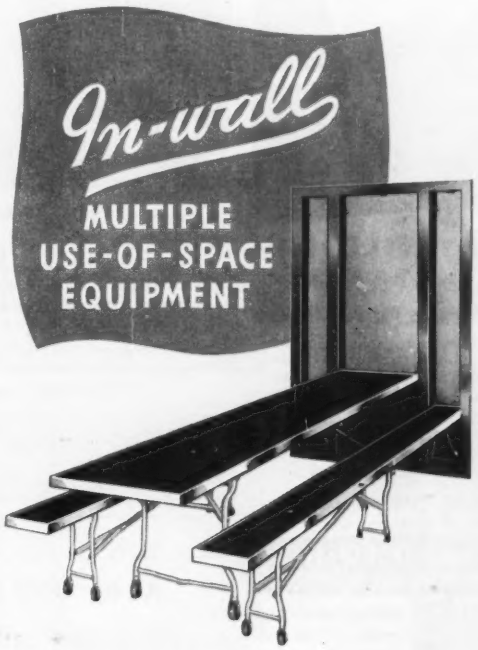
College Composition Clinic

A COMPOSITION clinic for students who cannot express themselves intelligibly in their written work has been organized and put in operation by the college of liberal arts department of English at Wayne University. According to a report in *Higher Education*, admission to the clinic is only upon assignment by a faculty member.

Any teacher is invited to refer to the clinic any junior or senior who writes so poorly that reading his papers is "an unsettling and irritating experience." The faculty member sends one of the student's papers, together with an explanatory note, to the composition clinic and the student makes an appointment.

The student's writing is diagnosed in the clinic, and he is given the necessary treatment. When his writing is judged to be sufficiently improved, a notice is sent to his teacher.

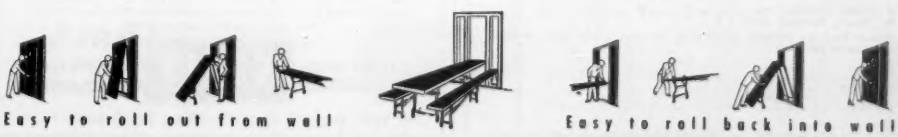
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AUDIO-MASTER Corporation, 341 Madison Ave. New York 17, New York, maker of audio-visual equipment, is now distributing educational recordings and has started with two series. The first is a large collection of recordings, available in separate albums, in the Ethnic Record and Folkways Library. This features documentary, on-the-spot recordings of primitive rhythms and music of many lands the world over. An illustrated pamphlet containing valuable background notes comes with each recording. The Music Master Series, also distributed by this company, is designed to stimulate the imagination of young people and create an early interest in classical music.

To help schools and libraries obtain phonograph equipment along with recordings, the Audio-Master Corporation has a plan whereby the purchase of a minimum quantity of recordings will automatically include purchase of an Audio-Master Jr., 3-speed phonograph.

A TELEVISION survey at South High School, Columbus, Ohio, indicates that students view television an average of more than two hours per day. Best liked programs are musical shows, followed by sports, with dramatic shows third. Of the group surveyed, 493 pupils saw television regularly. "Since television" 188 pupils indicated that they got "fewer hours of sleep" and 98 checked "less study time"; 293 pupils stayed at home more, 60 less. . . . *The News Letter*

CHECK LIST OF NEW AUDIO-VISUAL AIDS

Consult the SCHOOL AND COLLEGE MANAGEMENT *Product Information Page, 21. Use the postage-free Inquiry Card; indicate key number of item about which you want further details. . . . To buy or rent films write directly to the distributor. Please mention* S&CM.

16-mm. Educational Films

Prices subject to change without notice. Where films are sent free, except for transportation charges, the word "loan" is used.

S&CM-302M—Pattern for Survival. 20 min. Sale—color, $150; black and white, $100. Available from Cornell Film Company, Dept. S&CM-302M, 1501 Broadway, New York 18, New York. Rental—color, $15; black and white, $10. Available from Marsak Films, Dept. S&CM-302M, 220 West 42 St. New York, N. Y.

This film deals with the measures we can take to protect ourselves before, during, and after an atomic attack. The description of protective measures is preceded by a simple, clear explanation of the various types of atomic blasts and their effects. The illustrations are generally applicable and the presentation is calm and reassuring. For senior high-school, college, and adult groups.

S&CM-303M—Vitamin Rivers. 22 min. Color. Loan. American Can Company, Home Economics Section, Dept. S&CM-303M, 230 Park Ave. New York 17, New York.

The history and economics of producing fruit and vegetable juices are explained through a story about a young girl who is preparing a book on juices as part of her schoolwork. The processes involved in growing and harvesting the fruits and vegetables and then canning their juices are reviewed. The film emphasizes the mineral and vitamin content of juices and importance in our diet. For geography, health, and home economics classes.

S&CM-306M—Driver Education Films. A series of three films and 12 filmstrips produced by General Motors with the counsel of the National Commission on Safety Education of the NEA. Running time for the films ranges from 11 to 17 min. Filmstrips average about 60 frames each. Teaching guide is included with series. Sale—$69.75 for complete series. General Motors Photographic, Dept. S&CM-306M, General Motors Building, Detroit 2, Michigan.

This series, especially designed for high-school classes, covers driver qualifications and the care and function of the car as well as basic driving techniques and advanced driving skills.

For more facts use Inquiry Card. S&CM-37M



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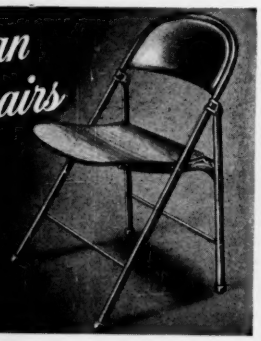
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THE Department of the Army recently released three documentary films about the situation in Korea. They can be obtained on loan from the Signal Officer at the offices of the Commanding Generals of the First Army, Governors Island, New York 4, New York; Second Army, Fort George G. Meade, Maryland; Third Army, Fort McPherson, Georgia; Fourth Army, San Antonio, Texas; Fifth Army, Chicago, Illinois; Sixth Army, San Francisco, California. These films are sold by United World Films, Inc. Dept. S&CM-M, 1445 Park Ave. New York, New York.

The Crime of Korea. S&CM-307M. 13 min. Sale—$21.40. Republic of Korea at peace contrasted with conditions after the communist invasion.

Our Stand in Korea. S&CM-308M. 20 min. Sale—$28.66. A chronological report of events during the first two weeks of the crisis with an explanation of the action in Korea according to United Nations procedure.

First Forty Days. S&CM-309M. 24 min. Sale—$30.84. This film documents the delaying action which was necessary to secure a foothold against North Korean forces.

S&CM-305M—The Torch. 11½ min. Color. Loan. National Board of Fire Underwriters Film Library, Dept. S&CM-305M, Bureau of Communications Research, Inc. 13 East 37 St. New York 17, New York. West of the Rockies, order from National Board of Fire Underwriters, Dept. S&CM-305M, Merchants Exchange, San Francisco 4, California.

A color cartoon with a humorous approach to the subject of fire safety. The film shows that everyone carries in himself some bit of human carelessness that can lead to a preventable fire.

S&CM-310M—The Growing Years. 20 min. Sale—$85. Rental—$3.75. Visual Aids Service, Dept. S&CM-310M, Girl Scouts of the U. S. A. 155 East 44 St. New York 17, New York.

An appealing film about what four years of rewarding, wholesome scouting activities come to mean to Janet, first seen as a shy, lonesome newcomer to town. The leading role is winningly played by a 13-year-old Girl Scout, and the other roles are played by scouts and their leaders. The film shows strong motivation for upper elementary and junior high students to join the scouts.

S&CM-304M—Rx. 20 min. Loan. E. R. Squibb and Sons, Dept. S&CM-304M, 745 Fifth Ave. New York 22, New York.

A nontechnical documentary about the ceaseless research of the modern pharmaceutical industry to develop new and more effective drugs which the consumer can buy at minimum cost. The film touches on many aspects of this research, among them the development of ether manufacturing; the manufacture of streptomycin; and the use of the new electron microscope which enables study of hitherto invisible microscopic particles.

Catalogs

Pilgrim Color Slides. Pilgrim Productions, Dept. S&CM-377M, 8 Bosworth St. Boston, Massachusetts. 26 pages. Free.

Scenic and historic slides of New England, New York, and Canada.

Latin American Village Catalog. Latin American Village, Dept. S&CM-384M,

Our Audio-Visual Committee

THIS listing of educational films was compiled and edited by Alice Green with the cooperation of the following committee:

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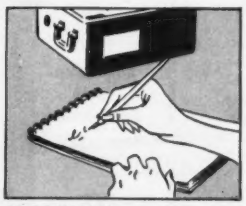
For more facts use Inquiry Card. S&CM-42M



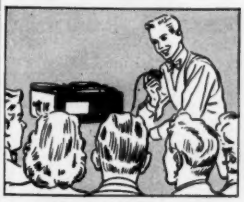
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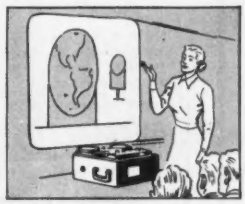
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New Audio-Visual Aids

(Continued from page 33)

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This is a brochure giving full details about the picture sets on South America, Mexico, California, and other lands produced by this company. All sets consist of laminated, multicolor prints, usually accompanied by two manuals and a case for the prints.

1950-1951 Catalog of Teaching Aids. National Association of Manufacturers, Dept. S&CM-385M, 14 West 49 St. New York 20, New York. 23 pages. Free.

Lists films, posters, and booklets available from the N.A.M.

Motion Pictures on the Other American Republics. Revised 1950. Publication of the Federal Security Agency, Office of Education. Available from Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. 16 pages. 15¢.

Lists films of various government agencies with complete information on how to borrow, rent, and purchase them.

World in Color Productions 1951 Brochure. World in Color Productions, Dept. S&CM-382M, Elmira, New York. 6 pages. Free.

Lists films on national parks, historical landmarks, and similar subjects, for sale.

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For Administrators

Moral and Spiritual Values in the Public Schools. Prepared by the Educational Policies Commission. NEA, Dept. S&CM-201M, 1201 Sixteenth St. N. W. Washington 6, D. C. 100 pages. $1; discount for quantity orders.

A significant report whose basic premise is that moral and spiritual values must be taught in our public schools, and that this teaching must be accomplished "without endangering religious freedom and without circumventing the policy of separation of church and state." Included is a program with which schools can work toward this goal.

American Education through the Soviet Looking Glass. By George S. Counts. Bureau of Publications, Teachers College, Dept. S&CM-203M, Columbia University, New York 27, New York. 47 pages. 50¢.

An interesting analysis of an article on American education written by N. K. Goncharov, one of Russia's leading scholars, which appeared in the official publication of the Soviet Academy of Pedagogical Sciences. Dr. Counts nails the distortions and falsification of fact which the Russian author uses to condemn education in America without qualification. Dr. Counts regards this attack as a reflection of the Soviet foreign policy of hostility toward the West.

The Development of Prismatic Glass Block and the Daylighting Laboratory. By R. A. Boyd. Engineering Research Institute, Dept. S&CM-202M, University of Michigan, Ann Arbor, Michigan. 88 pages. $1.

An authoritative and scientific survey of the research work in daylight control conducted for 10 years at the Institute, sponsored by Owens-Illinois Glass Company and later by American Structural Products Company, its subsidiary. The booklet, which is well organized and illustrated, describes the laboratory and ingenious equipment, including several new measuring instruments that were especially invented for this research. The result was a new prismatic glass block which directs light to the ceiling for diffuse reflection.

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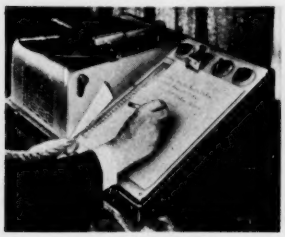
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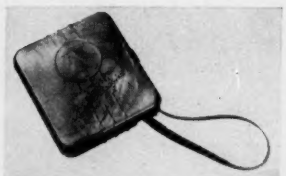
Movie Still Attachment S&CM-455M
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New A-V Device S&CM-453M
High-school and college music appreciation classes will be aided by the new Phonoscope. The device synchronizes films with standard recordings of selected masterpieces, enabling teacher and students to study themes, instruments, styles, dramatic situations, and musical characterizations. By means of this synchronizer, the teacher can select exact portions of the recording that he wants to play.

Fifteen masterpieces are available on film for use with the Phonoscope. Films illustrate 1,497 musical concepts or program incidents and cover all major musical forms. They include analyses of works by Haydn, Mozart, Beethoven, Brahms, Franck, Strauss, Tchaikovsky. Record guides containing correlated information in printed form are available for use with the films. Instrument and films were both developed by Dr. W. Otto Miessner. . . . Use the Inquiry Card or write to Operadio Manufacturing Company, Dept. S&CM-453M, St. Charles, Illinois.



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Projector Table S&CM-452M
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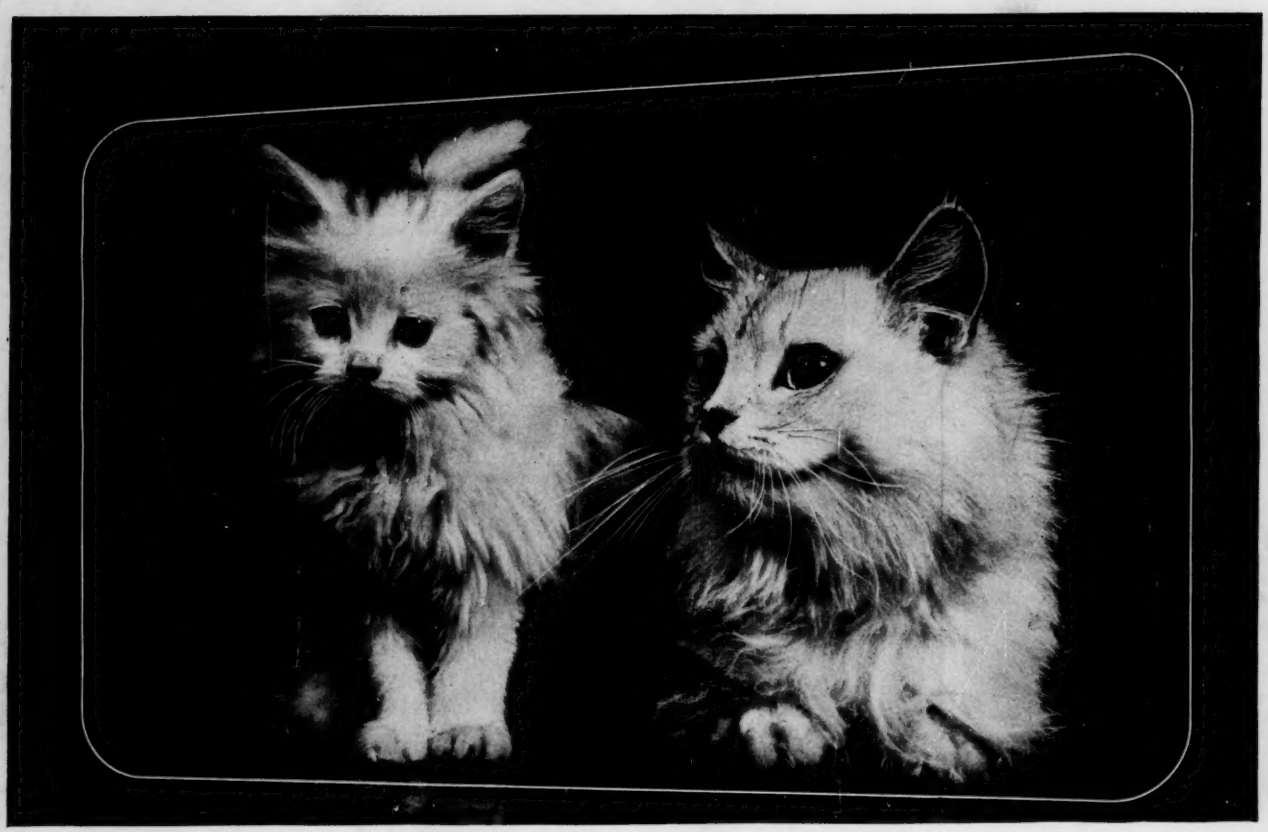
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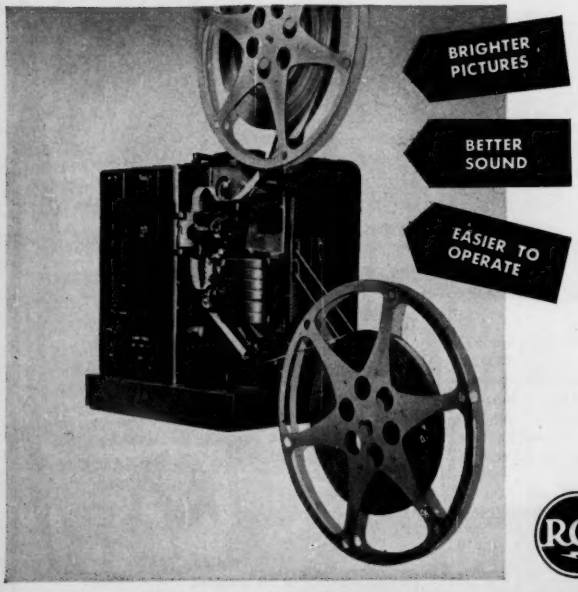


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